PROJECT MANAGEMENT METHODOLOGY APPLIED TO DALL'S SHEEP HERD HEALTH ASSESSMENTS

By

Jeffrey Johnson

RECOMMENDED:

Seong Dae Kim, Ph.D, PMP

LuAnn Piccard, M.S., PMP

Roger Hull, PMP, CRISC
Chair, Advisory Committee

LuAnn Piccard, M.S., PMP
Chair, Engineering, Science, and
Project Management Department

APPROVED:

Kenrick Mock, Ph.D.
Associate Dean, College of Engineering

Date

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A

PROJECT

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Jeffrey Vance Johnson, B.S.

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Jeffrey Vance Johnson

Project Management Department, University of Alaska Anchorage

ABSTRACT

Assessing Dall's sheep herd health is the first step to monitoring and management. Currently Alaska does not have a baseline disease presence and prevalence data set; therefore, the Alaska Department of Fish and Game will conduct health testing to develop a baseline of wildlife diseases within south-central Alaska. This project consists of three to seven years of work where 30-40 sheep are sampled annually. These samples will be analyzed to determine what types of disease, bacterial and viral, currently exist in the population. This knowledge base will build a foundation for study of Alaska's Dall's sheep population. If there is an all-age die off, the Alaska Department of Fish and Game will refer to the samples previously collected and determine if the disease previously existed or if there was an external introduction. Though the Alaska Department of Fish and Game conducts projects regularly, project management methodologies are not explicitly applied to their plans. An execution plan was produced for the *Project Management Methodology Applied to Dall's Sheep Herd Health Project,* incorporating project management methodologies that can be used to conduct their study. This execution plan documents current best practices, allowing a project manager to execute this plan or use it as a template to build a customized plan. This tool will effectively allow biologists to focus their time on research by optimizing their project plan, allowing for more robust and effective project documentation.

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INTRODUCTION

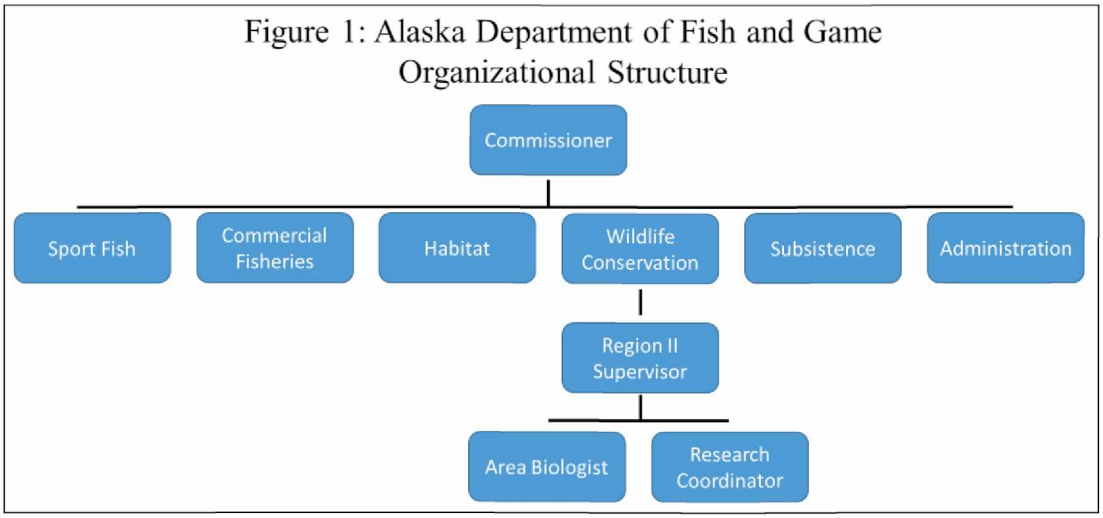
This project began prior to the project manager beginning the Masters of Science Project Management program and the start of capstone project. , Project Management Capstone Project Initiation and Planning. The project manager's love of the outdoors led him to taking an avalanche certification course in the spring of 2013. This is where he met a research biologist who later would become the project sponsor. During the course, the project manager learned that the sponsor was working for the Alaska Department of Fish and Game as a Dall's sheep biologist and they both shared a passion for wildlife and the outdoors. Since then, due to their interest in Dall's sheep and many conversations have occurred on the species history and habits.

To complete the masters program, a capstone project is required for graduation and for six months prior to the start of the capstone they discussed options that would not only satisfy the requirements of the college, but also benefit the Alaska Department of Fish and Game and himself as a wildlife biologist. The project sponsor had made several different project options available; however, the timing and scope of the projects were difficult to align with the completion of the university's capstone course schedule. Another issue that soon arose was the fact that the project manager's background was not in the biology specialty that the project sponsor was familiar working with, but is in the project management arena. This was only an issue because several recommended projects included specific scientific work. Though project management is a skill that the project sponsor has and is something that he accomplishes regularly in his work as a wildlife biologist, he did not know how to specifically apply this to one of his research projects. Fortunately, as a PhD graduate, he has had to endure years of volunteering labor and conducting research for other organizations and he quickly found a project that met these requirements. This project was soon titled Project Management Methodology Applied to Dall's Sheep Herd Health Assessments and on its way to completion.

BACKGROUND

The Alaska Department of Fish and Game is tasked by the Governor of Alaska to protect, maintain, and improve the fish, game, and aquatic plant resources of the state. They manage approximately 750 active fisheries, 26 game management units, and 32 special areas with an annual operating budget of $200 million. Using the highest standards of scientific integrity the Alaska Department of Fish and Game promotes sustainable management programs in order to optimize public use and economic benefits. Vital to their mission and goals are to make policy and management decisions while providing education and outreach programs, to interact with and involve the public (Alaska Department of Fish and Game, 2015).

Figure 1: Alaska Department of Fish and Game Organizational Structure



It is important to understand the organizational breakdown of the Alaska Department of Fish and Game to determine how work is completed. Knowing what positions are the decision-making authorities at each level throughout the department, helps define the workplace environment. This project reviews the organizational structure down to the

wildlife biologist that will conduct this work and you may refer to Figure 1: Alaska Department of Fish and Game Organizational Structure.

The department is headed by the Commissioner and includes six divisions, a boards section, and two councils. The six divisions consist of wildlife conservation, sport fish, commercial fisheries, habitat, subsistence, and administration. The wildlife conservation division is led by the director with five regional supervisors. Anchorage, Alaska is the region II headquarters office, where the regional supervisor directs area biologists, a regional research coordinator and support staff.

In order to assist the state in making countless policy and management decisions, numerous research projects are conducted annually on many Alaskan species. Each project is in search of countless different research questions. Previous Dall's sheep projects that have been completed have research questions dealing with pregnancy rates of ewes, survival rates of lambs and causes of mortality of lambs. Each of these studies assist the state in growing their knowledge on the species allowing for a more thorough understanding of population dynamics.

Though the Alaska Department of Fish and Game conducts various projects, they do not have a standard project management methodology that the project managers are required to incorporate into their plans. Each project manager has the ability to plan and manage their wildlife research utilizing their project management style. Though this flexibility may allow each project manager to focus on what is important to them, incorporating and requiring a department wide use of specified project management standard, would allow their projects to have the opportunity to be more efficient, potentially saving time, resources and/or monies that could be allocated in another manner to benefit the resources and residents of Alaska.

There are several weaknesses and shortfalls in the current process that the Alaska Department of Fish and Game uses. Prior to starting the project, several items were documented and later addressed and incorporated into the execution plan. Some of the areas that could be improved on by using a standardized process are; completion of a thorough plan, improving the quality of documents that are produced for project, increased documenting results from executing the plan. By allocating and focusing time to write a thorough plan, the project manager will be able better understand the entire project and be able to organize the activities within a schedule. This will allow the project manager to previously determine costs to stay within the budget and develop confidence levels that the budget will be met. Risks will be identified and organized allowing for a risk management plan to be incorporated to mitigate risks. Furthermore, the project manager will be able to use the plan as a communication tool for reporting, procuring materials and taking corrective actions before they are too large to correct. Improving the quality of documents will assist in managing data that is documented and would allow the project manager to manage from the defined plan not off of daily decisions. With the minimal resources that are allocated to projects, the project manager will be able to manage the project schedule and coordinate with the minimal full time staff to easier fill resource requirements.

The state of Alaska, for the first time since the 1980's is seeing tighter state budgets resulting in fewer department resources due to the current economic situation. Primarily due to oil prices dropping and the projected prices to stay low for the foreseeable future, the Governor is finding ways to tighten the budget. Managing projects effectively and getting the most out of each project is vital.

The purpose of this project is to develop an execution plan for the Alaska Department of Fish and Game to be used as a tool and template that allows for effective project management, data collection and documentation. This will be accomplished by creating an execution plan to be used to execute the Dall's Sheep Herd Health Assessment Project by a project manager or research biologist within the department. This execution plan is also developed to be used as a template that allows all employees within the Alaska Department of Fish and Game to focus additional effort on research by minimizing the burdensome planning requirements.

For the entirety of this project it is essential to note that the position of project manager may be executed by any position within the Alaska Department of Fish and Game as they do not have specified positions that are solely within this role or title. A research coordinator or area biologist that is managing and executing a research project is to be referred to as project manager for the remainder of the report.

PROJECT DESCRIPTION

The Project Management Methodology Applied to Dall's Sheep Herd Health Project was completed to build a project management plan to write the Dall's Sheep Herd Health Assessment Execution Plan. Both plans will be written about within the report. The first portion of the report will speak to the Project Management Methodology Applied to Dall's Sheep Herd Health Project and the complete process of initiation, planning, execution, monitoring and controlling and closing. The Dall's Sheep Herd Health Assessment Execution Plan is the deliverable from completing the Project Management Methodology Applied to Dall's Sheep Herd Health Project and will be referred to as the execution plan throughout the remainder of the report. The execution plan has been furnished as a printed document and provided in its entirety in an electronic, modifiable form to the Alaska Department of Fish and Game. This plan is written for the executing project manager and other project managers within the department with three specified uses.

The first purpose of the execution plan is provide a completed plan in its entirety to an Alaska Department of Fish and Game project manager to execute. Prior to execution, the project manager will review the written plan and complete the required actions to implement the project. Some of these actions include allocating manpower, ordering required supplies, setting a project start date, and executing the plan. The anticipated benefit to the project manager is a decreased time requirement to execute the plan since the time to write such a plan has been accomplished. The second benefit to the project manager is to be able to have the opportunity to execute a project with a thorough plan to determine if it is a worthwhile task to complete for future projects.

The second intended use is for the project manager to be able to use this execution plan as a template for constructing future plans. Use of the execution plan will familiarize the project manager and project team with a complete sample scope of work which may be modified and applied to future projects. By using this project as a template, the project manager will have a standard document to become familiar with, thus reducing the time required in the planning phase of future projects. By having a draft plan, time will be reduced by replacing the new project data in the provided sections. Furthermore, by providing this document the project manager will have a through completed plan establishing a standard of what is required for a complete research project. The project manager will then be able to determine what is useful or not when developing future project management plans. If this were to occur throughout the department, a standard can be developed, growing the organizational project management maturity.

The final intended purpose for the execution plan is to document the Alaska Department of Fish and Games Dall's sheep sampling best practices. To date there are many projects that have been conducted that involve capturing sheep to gain the information required. Since there is not a complete and thorough documented plan available, completing such will assist the project managers by having a document to refer to or execute from, when conducting such work.

PROJECT SCOPE

This project has provide a complete execution plan for Alaska Department of Fish and Game to implement their *Dall's Sheep Herd Health Assessment Project*. Utilizing project management methodologies, an execution plan was written to include all sections and background research required to carry out the plan. The execution plan will facilitate one season of operations and be modified for the future required capture years. There are no funds allocated to the project as all hours are volunteer hours. The final deliverable is the execution plan furnished to the Alaska Department of Fish and Game in a printed and electronic form.

The project started at the first topic research session.

The project will end with the delivery final closeout of the project documents.

OBJECTIVES

The objectives of the Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project are:

- Develop an execution plan for Alaska Department of Fish and Game to implement their project when required and to be used as a basis to build future plans
- Conduct research in order to write such a plan

DELIVERABLE

The deliverable for the Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project is a complete and thorough execution plan: The Project Manager is responsible for the completion of the deliverable.

EXCLUSIONS

Exclusions from the Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project are:

- Implementation and execution of the execution plan
- Project research recommendations for best practices outside of project management
- Any contracts that are required will not be written or included in the plan
- Procuring supplies
- Determination of specific human resources for execution (i.e., Names)

ASSUMPTIONS

Assumptions for the Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project are:

- The Alaska Department of Fish and Game will provide accessibility to information required to conduct research and write the plan
- The Alaska Department of Fish and Game will accept completed plan

CONSTRAINTS

Constraints on the Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project are:

- Project Manager has a full time job, which limits time available
- All resources are limited to volunteers
- There are no funds available
- Supply purchase location is determined by Alaska Department of Fish and Game
- Sheep capture guidelines must adhere to Craig Foster Capture Guidelines, 2004
- Herd health monitoring practice must adhere to Western Association of Fish and Wildlife Agencies (WAFWA) Wildlife Health Committee 2014 Bighorn Sheep Herd Health Monitoring Recommendations, Draft, 2014

REQUIREMENTS

The following are requirements for the project;

- Execution Plan to include

- Current best practice capture processes and guidelines – The document is to be referenced for capture guideline in the PMP. These guidelines will be used and do not require any further documentation or research.
- Current WAFWA Bighorn Sheep Herd Health Monitoring Recommendations – These recommendations are completed by a peer group that conducts herd health monitoring regularly. The Alaska Department of Fish and Game will use these guidelines for the capture work and do not require any further documentation or research.

- Simple, succinct, executable and modifiable document as determined by Alaska Department of Fish and Game.
- Hard copy furnished in binder along and cd including final document in adobe and electronic modifiable format (word, excel, project).

CRITICAL SUCCESS FACTORS

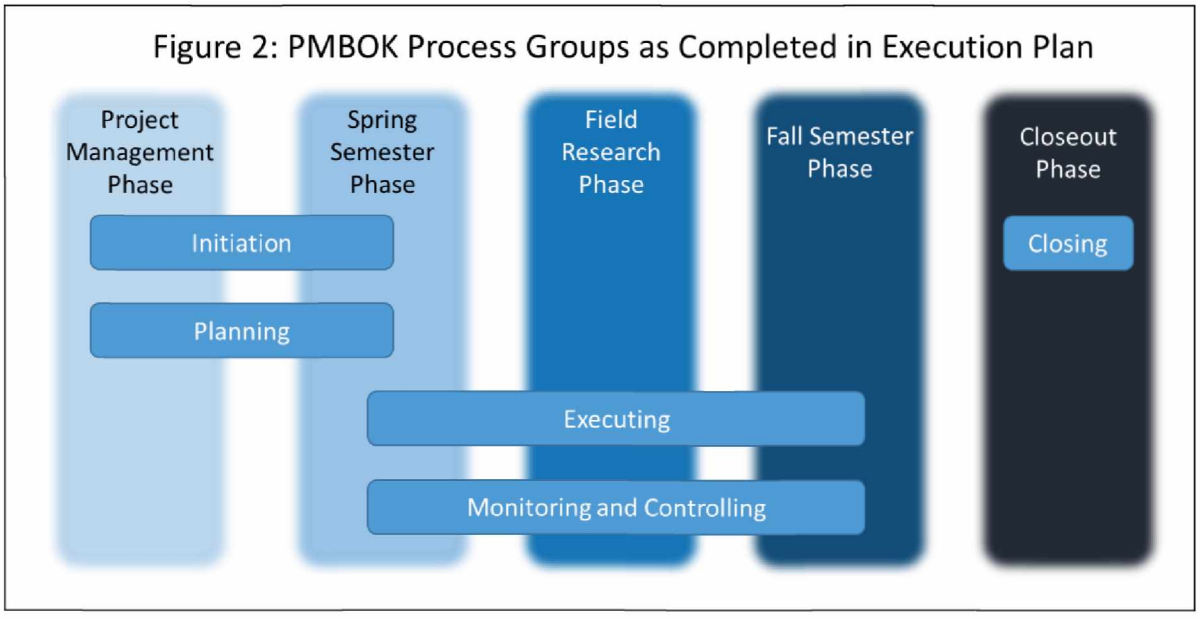
The Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project will be a success if the following is accomplished:

- Plan is practical for the Alaska Department of Fish and Game to operate from
- Plan is realistic and is usable as a model for future plans
- Plan expands on current processes with application of project management principles

PROJECT APPROACH

The project was planned using the Project Management Body of Knowledge and their five standard process groups, initiation, planning, execution, monitoring and controlling and closing (PMI, 2004, p. 5). These process groups are covered explicitly throughout the five phases of the project management plan and can be seen organized below in Figure 2: PMBOK Process Groups as Completed in Execution Plan. It is important for the reader to understand that these process groups are not linear and may be completed at any point throughout the project. These processes may also reoccur throughout the project.

Figure 2: PMBOK Process Groups as Completed in Execution Plan



In compliance with the Project Management Body of Knowledge the project was organized into phases based on the complexity. The project management phase of the Project Management Methodology Applied to Dall's Sheep Herd Health Assessments Project applied the initiation and planning process groups. The spring semester phase applied the initiation and planning process groups and initiated the execution process group as well as the monitoring and

controlling process group. The field research and fall semester phases completed the execution and monitoring and controlling process groups while the project closeout phase applied project closeout.

Knowing and understanding the five standard process groups allows the project manager to organize their plan and manage it appropriately. These process groups will assist in ensuring that all work that is required to accomplish the project is included when developing a project management plan. Any work that is required but is not included in the plan can significantly affect the project when it is added at a later date. The additional work packages will affect the schedule, costs, and resources potentially causing a delayed or cancelled project. It is pertinent to understand the process groups or refer back to Figure 2 throughout the research report as they are referred to regularly.

INITIATION

The initiation process group includes all "processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase" (PMI, 2003 p. 75). Project initiation officially began 16 January 2015 with the initial topic research being conducted in the execution plan's project management phase. The first work package completed was to begin development of the initial topic research that would determine the projects scope and specify the official project sponsor. Following the topic selection, was completion of the official project charter.

The original charter is a comprehensive document that establishes the work to be completed and the project milestones setting it off in the right direction. After completion of the project charter, a meeting occurred between the project sponsor, lead project advisor, and project manager. Including stakeholders during initial planning created support that carried through the project. Full support is essential and assisted in the success of the project by ensuring it was not canceled because of organizational shifts in priorities. Because of the charter's thoroughness, during that meeting, the stakeholders were able to negotiate scope and ensure everyone understood all of the work and only the work. As stated previously, it was difficult for the project sponsor and project manager to determine the project scope, as the two individuals have different educational and professional backgrounds. Due to open communication, the project sponsor understood the extent to which the project would be planned and that the wildlife biology research would be excluded.

The official charter defines the initial description, scope, objectives, funding authority, critical success factors, milestones, exclusions, assumptions, constraints, risks, opportunities and stakeholders. Once complete, the project was signed making the project official and initiated work developing the project management plan. The initiation process group was completed 30 January 2015.

It was unknown at the time however, key to project success was the development of the project charter and the explicit scope statement. Initially when the scope was being developed the complexity of this project seemed overwhelming due to not having the specific wildlife biology knowledge. Upon reviewing the scope, it was realized that the project that was being developed was not nearly as complex as initially thought. As the scope complexity of the project was further understood the project manager realized that there was ample time to execute and manage the project rather than spend all of the time on constructing documents. Being able to spend more time managing the project and maintaining the schedule allowed the project manager to stay ahead of deadlines. It is very easy for a customer or project team to develop a scope that is larger than can be managed and quickly overwhelm the project manager. A key lesson learned to this project is developing a scope that is manageable so the project manager can stay ahead of the work and look at the project holistically instead of being forced to on keep up with and focus on deliverables.

PLANNING

The planning process group includes the "processes required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve" (PMI, 2003 p. 75). The planning process group was completed during the spring semester phase, beginning on 16 January 2015. It is here that the signed project charter was used to begin developing the project management plan that would later be used to complete the execution plan. The Alaska Department of Fish and Game research biologists, plan and execute their research projects either independently or as a small team. For this

reason, it was apparent that the plan must be thorough enough to be used as an exclusive document; however, it must not be too extensive and drawn out or else it would not be used to its full potential. The planning process group outputs are the project management plan and the supporting sub management plans: scope management plan, requirements management plan, schedule management plan, resource management plan, quality management plan, communications management plan, risk management plan and closeout management plan. A cost management plan was not completed because no funding was expended or available for this project. Several appendices were developed and supplied to support the plan with a work breakdown structure, master schedule, risk register, requirements traceability matrix and stakeholder register.

Stakeholder engagement throughout planning was key to minimizing the chance of significant future changes to the plan. The stakeholder register completed along with the stakeholder chart allowed the project manager to determine the power each stakeholder had and individually addressed each of their requirements. Stakeholders have the ability and the potential to significantly delay a project should they not be managed appropriately. The planning phase was completed 20 April 2015.

It is important to note that though the planning phase was completed, anytime additional information was found throughout execution, the project management plan was updated. Doing this allows anyone reviewing the project after it is complete to have a completed document. Furthermore, any changes that are made can also be annotated in the lessons learned portion of the project closeout, allowing the reader to determine why changes were made.

The scheduling of work for the project had several challenges. For this reason, the schedule was built with float throughout to remain flexible. Though considered a challenge and not a risk because it was known to occur, the project manager had several weeks within the project schedule that no work could be completed on the project. Some of the reasons were due to conflicts with work, vacation and personal schedules. These types of activities must be considered and planned for when constructing the schedule ensuring that the project can stay on schedule. All of these schedule conflicts were known when constructing the schedule and included. The second scheduling challenge was ensuring that the gaps in resource availability did not delay any deliverable completion or submission. The project manager ensured that this was not a problem by completing work as early as possible prior to the known trips occurring. If computer access was not available, the work was also submitted ahead of schedule to ensure on time delivery.

Several documents were used to build the knowledge base required to write a realistic plan. The documents that the project management plan required to be incorporated were Craig Fosters Capture Guidelines that document the sheep capturing best practices and The Western Association of Fish and Wildlife bighorn sheep Herd Health Monitoring Recommendations. Though these documents are not specifically referred to in the plan, they were used for building a knowledge base to develop a realistic plan and as references to the plan. The second purpose of reviewing the documents was to incorporate best practices into the plan—for example, equipment lists, capture guidelines and health monitoring recommendations.

PROJECT ROLES AND RESPONSIBILITIES

All work completed during the project management plan is categorized as volunteer hours because the project has zero funds allocated. This is specified within the project charter. The only resource that is allocated specifically to the project was the project manager, and he was only available part time. The project sponsor works for the Alaska Department of Fish and Game and was requested to allocate a minimum of 2 hours monthly, for bi-monthly project update meetings with the project manager. The three project committee members consist of full-time university staff; therefore, their hours will not be allocated to this project. All members have signed a contract that can be found in the supporting documents specifying their committed requirements to supporting the project. This contract ensured that all project members understand who is responsible for what work throughout this project and assisted in displaying such. In addition to the primary responsibilities outlined below, all members will adhere to the contract and if any responsibility cannot be completed, they will notify the project manager. Though completing a contract like this seems extreme it is important to communicate the requirements of each team member to ensure that there are no requirements excluded.

Project Sponsor – The project sponsor gives support to the project and ensures that the project adds to the body of knowledge. He is the recipient of the project deliverable. He is not responsible for working on the project, but he can assist with technical questions and provide knowledge on the subject. He is requested to participate in bi-monthly meetings to ensure the execution plan that is submitted is realistic to be used.

Project Manager – The project manager plans, manages, and completes all work required to conduct the project. He will complete all administrative duties, provide status reports, and remain overall accountable.

Project Committee – The project committee will provide assistance and be available for help when the project manager requests. They will advise, monitor progress, grade deliverables, conduct go/no-go checkpoints and provide any additional required support.

Administrative Staff – The Masters of Science Project Management administrative staff provided assistance on project when the project committee expertise was not required. They provided administrative assistance in preparation of products and deliverables.

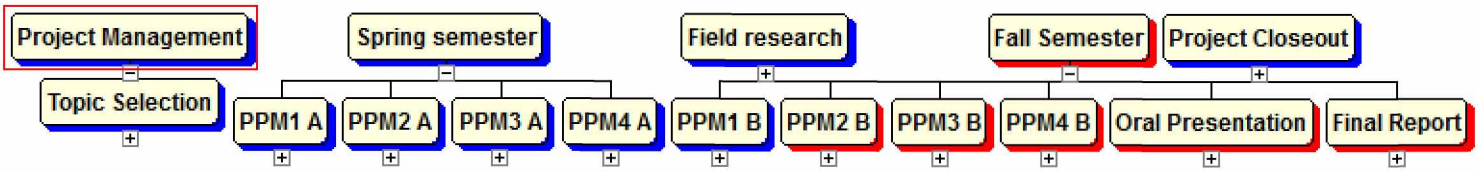
SUMMARY TASKS

Below, on Table 1: Summary Tasks, you will find the outlined work to be accomplished, including the duration and work in hours to include the start and finish date. Additionally, Figure 3: Work Breakdown Structure provides a secondary visual to the breakdown of how the work is organized by phase, including the summary tasks. Within the summary tasks there are four milestones. PM686A and PM686B have two go/no-go checkpoints where the project committee will decide if the project manager is meeting the minimum project requirements and will be allowed to continue as planned with the project management plan schedule.

Table 1: Summary Tasks

WBS	Task Name	Duration	Work	Start	Finish
0	**Dall Sheep Herd Assessment PMP**	**1873 hrs**	**352.97 hrs**	**Fri 1/16/15**	**Tue 12/8/15**
1	**Project Management**	**15 hrs**	**13.23 hrs**	**Wed 1/28/15**	**Fri 1/30/15**
1.1	**Topic Selection**	**15 hrs**	**13.23 hrs**	**Wed 1/28/15**	**Fri 1/30/15**
2	**Spring semester**	**545 hrs**	**148.68 hrs**	**Fri 1/16/15**	**Mon 4/20/15**
2.1	**PPM1 A**	**29 hrs**	**26.5 hrs**	**Fri 1/16/15**	**Wed 1/21/15**
2.2	**PPM2 A**	**203 hrs**	**42.18 hrs**	**Wed 1/21/15**	**Wed 2/25/15**
2.3	**PPM3 A**	**216 hrs**	**46.97 hrs**	**Sat 2/7/15**	**Wed 3/18/15**
2.4	**PPM4 A**	**201 hrs**	**33.03 hrs**	**Wed 3/18/15**	**Mon 4/20/15**
3	**Field research**	**483 hrs**	**10 hrs**	**Sat 6/13/15**	**Mon 9/7/15**
4	**Fall Semester**	**572 hrs**	**173.03 hrs**	**Fri 8/28/15**	**Tue 12/8/15**
4.1	**PPM1 B**	**96 hrs**	**28.5 hrs**	**Fri 9/4/15**	**Mon 9/21/15**
4.2	**PPM2 B**	**235 hrs**	**24.78 hrs**	**Fri 8/28/15**	**Thu 10/8/15**
4.3	**PPM3 B**	**200 hrs**	**49.5 hrs**	**Fri 10/9/15**	**Fri 11/13/15**
4.4	**PPM4 B**	**80 hrs**	**29 hrs**	**Fri 11/13/15**	**Fri 11/27/15**
4.5	**Oral Presentation**	**17 hrs**	**7 hrs**	**Fri 11/27/15**	**Tue 12/1/15**
4.6	**Final Report**	**433 hrs**	**34.25 hrs**	**Wed 9/23/15**	**Tue 12/8/15**
5	**Project Closeout**	**24 hrs**	**8 hrs**	**Wed 12/2/15**	**Mon 12/7/15**

Figure 3: Work Breakdown Structure



EXECUTION

The execution process group began 18 March 2015 and occurred in the spring semester, field research and fall semester project phases. The execution process group includes all "processes performed to complete the work defined in the project management plan to satisfy the project specifications" (PMI, 2003 p. 75). A portion of the project execution occurred concurrently with planning during the spring semester phase due to the short timeline that this schedule was to be completed within. The project sponsors schedule also required the completion of certain documents early during the planning phase for use during another Alaska Department of Fish and Game Dall's sheep research project. During the project charter stakeholder meeting, the project sponsor and project manager determined that several documents would have to be produced earlier than the original product schedule required.

Initially the field research phase included five days of capture work. The project sponsor was preparing to execute field research work for a different project that would benefit the project manager to assist on. The capture work within that project was initially planned to be used as the primary method of research for the execution plan allowing the project manager to gain hands on experience and develop the basis in which to write the execution plan. As previously determined in the risk register, there was a potential risk, that due to scheduling requirements, the project sponsor would be unable to include the project manager on the field research capture team. This risk was realized when the field research capture team was too large and the project sponsor had to remove the project manager from that work. For this reason, the scope of the field research was reduced solely to literary review. The literature review will be discussed further below; however, it was completed in order to build the knowledge base to allow for a more realistic plan to be written in accordance with the project requirements.

Key to the success of the execution plan is stakeholder management. The success of this project lies with the project sponsor accepting the execution plan. To ensure that there are no gaps in the execution plan, during the regular sponsor meetings, portions of the execution plan were reviewed and following revisions will be made. With this occurring several times throughout the project, the project sponsor will be familiar with the document and provide any recommendations minimizing the risk of the project sponsor not accepting the document. The project sponsor has made multiple comments on looking forward to the finished document and foresees the product meeting all of the requirements specified in the project charter.

The literary research and research report is a significant portion of the project hours. After receiving all of the documents to be reviewed by the project sponsor, they were reviewed several times for the literary research. The research report required 24 hours of work but was estimated at 15 hours. This is the one task that was grossly underestimated. To further the scheduling issues on this task, work was initiated on this task and the project manager was trying to report work on the task when it was realized it was not even scheduled. This risk will be further explained below.

The work estimating process of this project was regularly overestimated. The estimating process used for this project was the project manager's subject matter expert estimation. This caused a majority of the work packages to be overestimated, thus giving the project a higher than warranted effort performance index. Completion of work packages during project execution required updates to the schedule however did not require rebase lining. When the project schedule is used as a template it is recommended to re-baseline the project with the actual work hours completed.

The effort performance index is one of the metrics that the project manager reports on. Because the labor has no cost associated the hourly wages are allocated a one dollar value. By doing this the cost performance index can be reported as an effort performance index. This index is valuable in determining the amount of labor that was completed compared to the plan.

MONITORING AND CONTROLLING

The monitoring and controlling process group includes all "those processes required to track, review, and regulate the progress and performance of the project; identify any areas in which changes to the plan are required; and initiate the corresponding changes" (PMI, 2003 p. 75).The field research and fall semester phases covered the monitoring and controlling process group.

As previously talked about in the execution portion of this report, when the field research scope was reduced, the associated work in hours that was no longer required was reallocated to the literary research maintaining the project schedule. During this process group it was determined that some of the work required was not documented in the schedule requiring the schedule to be updated. This was a lesson learned. Although it was unplanned, when the work packages duration (in hours) were overestimated, it allowed for the work packages to be completed within the deliverable requirement dates.

The change control process is key to monitoring and controlling. During the first weeks of the spring semester phase, many stakeholders including the project manager became confused when trying to discuss the two product deliverables. The first deliverable being developed was the project management plan to complete the deliverable. The second deliverable being developed was the execution plan, initially called a project management plan, thus causing the confusion. One of the project advisors quickly noted the confusion when trying to review the project manager's status reports and documents, recommending the change. This greatly simplified discussing both products and minimized confusion. When this occurred the project manager referred to the change control process in the project management process and followed the procedures. It is important to have a change control process and use it throughout the project. It will assist in the documentation process when it is time to closeout.

The risk management process is vital to the success of every project. Risks were managed in accordance with the risk management plan. The risk management plan used for this project is robust, but it lacked depth in determining the risk effect if a risk were to occur. Though the initial effect was determined for each risk were if it were to occur, the secondary and tertiary effects were not. War gaming the effects of a risk is important in the beginning stages of the project and for several reasons. If the effect of a risk is under-represented, the project manager will not apply enough attention to the risk that it may require. Furthermore, the project manager will not know the total effect of the risk, delaying the response to all areas.

Four risks have occurred and all of them were predetermined except one. Each will be discussed. The risk identification numbers applied to each risk discussed below can be found in the project management appendix C: risk register.

The most recent risk occurrence was risk #8. This predetermined risk, which required work to be completed that was not scheduled, occurred when required work was completed that was not documented on the schedule. This required the project manager to input six work packages and 12 hours of work into the project schedule that was to occur. This affected the earned value metrics negatively because of the additional hours that were not initially established within the project baseline. The project manager reviewed the remaining schedule to confirm that all work that was to be completed, was on the schedule. Because of the risk response, this risk was not forecasted to occur for the remainder of the project because of the risk response and did not reoccur.

One of the predetermined risks that occurred was that the project sponsor may not be able to allocate the amount of time required to the project manager. This risk occurred when the field work that was scheduled for the project was cancelled. This caused the project research to shift from hands on field work to focus on literary research only. It is pertinent to be prepared for stakeholders to be busy and for schedules to change. Though the project manager maintained the on time schedule, the project was affected and the project research scope was reduced significantly. The field research was a large portion of the background development and research. Though the risk was predicted, the forecasted effect was not given complete forethought.

The third predetermined risk that occurred is risk #9. Work that was scheduled was not completed during the summer research summary task. The project manager did not complete five of the ten 2-hour scheduled summer

research sessions. This occurred when the field research was changed to literary research and the change was not documented in the plan or in the schedule. This work was required to occur later during the project. It was re-scheduled and the project was not delayed because of the slack available within the schedule. Again, the forecasted effect was not given enough thought.

The final risk that has occurred during the project was undocumented. Risk #10, occurred when a status report to a stakeholder was submitted late. Due to the status report work package not being input in the schedule, the report was being tracked and was submitted late after the stakeholder reminded the project manager that they were awaiting this information. This caused .5 hours of unallocated time to be spent on completing and briefing this document. The project manager also looked like he was not managing the project appropriately in the eyes of a stakeholder. There were three other status reports that were required to be completed in the future but were not on the schedule. This work was added to the schedule to ensure that it will be tracked and completed. By not completing status reports on time the organization executing the project can look as if they are not managing the project and can create doubt in the project manager's abilities. It is pertinent to track important dates and if you are unable to meet them the project manager must address it and reschedule.

CLOSEOUT

The project closeout phase covers the closeout process group. The closeout process group includes all of the "processes performed to finalize all activities across all process groups to formally close the project" (PMI, 2003 p. 75). This phase was a quick and simple phase. It was planned for and the documentation process began at the start of the project. This ensured that all required information was available and in the right format.

REQUIREMENT REVIEW

The following requirements for the project will be reviewed for completion;

- Execution Plan to include;
    - Current best practice capture processes and guidelines – The document is to be referenced for capture guideline in the PMP. These guidelines will be used and do not require any further documentation or research.
    - Current WAFWA Bighorn Sheep Herd Health Monitoring Recommendations – These recommendations are completed by a peer group that conducts herd health monitoring regularly. The Alaska Department of Fish and Game will use these guidelines for the capture work and do not require any further documentation or research.
- Simple, succinct, executable and modifiable document as determined by Alaska Department of Fish and Game.
- Hard copy furnished in binder along and cd including final document in adobe and electronic modifiable format (word, excel, project).

The first project requirement is a complete a thorough execution plan including all required internal plans in printed and electronic form. This plan references two documents in the literary review and used to build the execution plan. The execution plan was written as a simple, succinct, executable and modifiable document for use by the Alaska Department of Fish and Game. Upon completion of this document it was submitted to the project sponsor at the Alaska Department of Fish and Game 15 November 2015. The execution plan was accepted by the project sponsor and he will review the document further when his work schedule allows. Upon initial review, however, he accepted the document, approving that it met the requirements initially agreed upon in the signed project charter. The submitted plan included the hard copy and the electronic copy.

LITERATURE REVIEW

The research required for building the execution plan is a critical portion of the plan. The research did not involve research of people. Sources of data on current practices and lessons learned were provided by the project sponsor, along with his peers serving as subject matter experts for the project, the project sponsor supplied access to organizational data, records and best practices. These subject matter experts at the Alaska Department of Fish and

Game have assisted in developing project requirements and have assisted in documenting best organizational practices that are to be used within the execution plan. The project sponsor recommended several documents to be used for the literary research and to be referenced within the execution plan itself. These documents were provided in several different formats. A majority are non-published draft documents from projects that have previously been executed and the remaining documents are best practices that were developed by work groups and experts within the wildlife biology profession.

There are many scientific reports and books documenting all facets of the Dall's sheep history and habits. Though these resources are educational, they do not greatly assist in building a plan for developing a health baseline on the presence and prevalence of disease in Dall's sheep within Alaska. The resources selected for literature review for this project are products that are used and referred to by the research biologists when developing and conducting their wild sheep research. Craig Fosters Capture Guidelines is an Oregon Department of Fish and Wildlife document where best practices are documented. This document is used by the Alaska Department of Fish and Game as a standard in which to refer to and conduct their captures from. The Western Association of Fish and Wildlife Agencies is a group of wildlife researches composed of over 20 states and provinces. They have developed bighorn sheep Herd Health Monitoring Recommendations as a peer group that conducts herd health monitoring regularly. The Alaska Department of Fish and Game uses these guidelines for the capture work. This document standardizes definitions, specifies sampling recommendations and protocols.

The literature review sources were reviewed with the Alaska Department of Fish and Game's best practices currently used to ensure that the recommendations made are supported. The literature review is organized sequentially as the research will be conducted.

PLANNING

It has been determined by the Alaska Department of Fish and Game that developing a baseline of disease presence and prevalence within Alaska is an important part of assessing and monitoring Dall's sheep herd health. The Western Association of Fish and Wildlife Agencies, Wildlife Health Committee concurs, stating that "assessing and monitoring herd health is an essential element of wild sheep management in North America" (WAFWA, 2015, p. 4). The planning that occurred was completed to develop this baseline dataset. For this reason a plan has been requested to complete this work.

Dall's sheep are captured at specified times of the year for numerous reasons. "Capture operations depends on availability and migration patterns of the source herd, capture technique used, weather conditions and access to the source herd and release site, and personnel availability" (Foster, C. 2004, p. 20). Depending on the nature of research being conducted, capture periods will occur at different times throughout the year. It's important to understand the Dall's sheep behavior, patterns, and habits when conducting this research. For this project and for the reasons outlined below, adult captures will occur in March and April. During this period, ewes are not giving birth. Dall's sheep give birth in late May or early June and if attempting to capture lambs it must occur within the first days of lambing within this period. Meanwhile, in August and September, the hunting season for rams occurs. During this period, research is not conducted in order avoid disrupting the hunters. From March through June daylight hours increase and there is enough snow in the mountains to allow for a safe capture with a reduced risk of injuring the animal. The snow also slows movement of the sheep which increases the capture rate. The weather generally is not as poor and becomes more predictable allowing aircraft to travel more regularly as well.

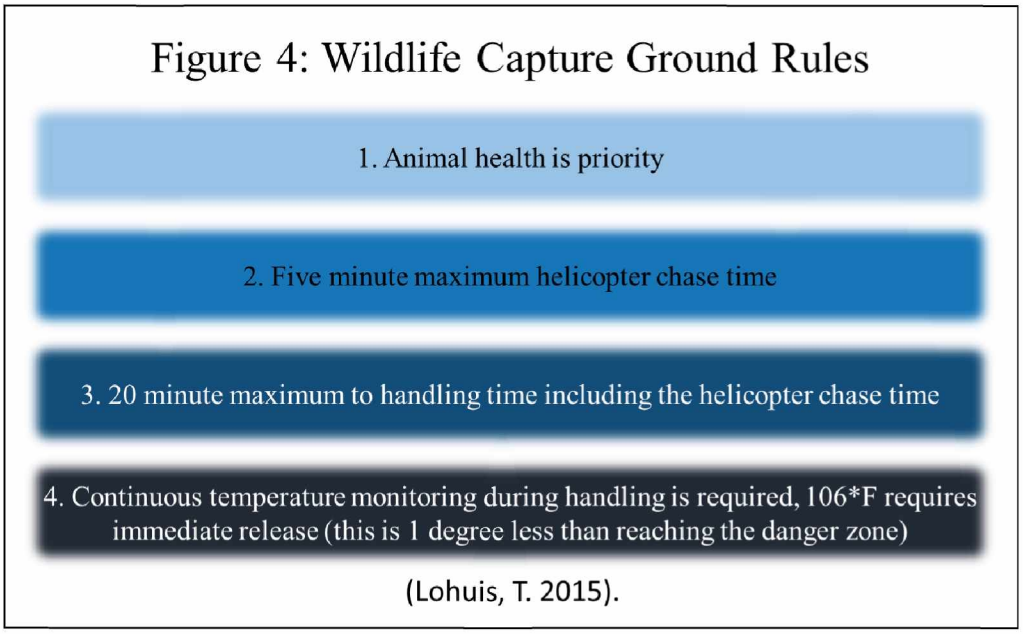
Prior to the capture work, significant preparation must occur. Determining the starting date for preparation depends on how frequently the organization conducting the research conducts this type of capture work. Permitting is not required for this project because sheep are being captured to take samples and will remain in the home state and country. If sheep were being transferred to another state or country for transplant or captures were occurring internationally there would be permit requirements that must be adhered to.

Throughout this period the project manager will begin becoming familiar with and utilizing the execution plan to determine several key steps to complete the plan. The capture period must be further specified and the schedule must be modified based off of this information. The project manager must determine the location where the capture work will occur. Once the location is chosen, the plan must be updated with the location, maps must be procured, and the aircraft must be contracted. The project manager must also prepare and order necessary equipment and

complete required documents for the study including: assurance of animal care form, sheep capture form and, if applicable, the volunteer release forms.

CAPTURE

Stringent standards are required for capture of wild mountain sheep. The Alaska Department of Fish and Game follows strict standards to protect the safety and health of animals captured. The capture and sampling process is an extremely stressful event for the animal. The Alaska Department of Fish and Game uses the ground rules provided below in figure 4 when capturing sheep. Using expert judgement and these ground rules, the Alaska Department of Fish and Game from 2008-1014 has exceeded the standard of less than 2% capture mortality with a .015% capture mortality rate. Additionally, Craig Foster's Capture Guidelines concur with the Alaska Department of Fish and Game stating that "the best protocol is to use the most effective capture method; one that causes the least stress, takes the shortest time, and results in the least physiological changes in the animal" (2004, p. 10).



While using the Wildlife Capture Ground Rules found in Figure 4, there are several important rules that the capture team must be aware of and follow. The capture time is controlled to ensure internal body temps of the animal do not become too high and injure the animal. "Helicopter chase time will be defined for the purposes of this project as the amount of time that the animal is responding to the helicopter whether walking, trotting, or running" (Lohuis, T. 2015). Animal appearance will be monitored during the chase, and the maximum amount of chase time allowed will be limited depending on animal appearance they are trying to get the animal moved to the bottom of a chute and as she starts going uphill they net them. The helicopter pilot will attempt to slow the animal by forcing it to move uphill. When that occurs, the net gunner will deploy the net while ensuring the sheep will be captured in a location that has a minimum chance of injury.

Capture mortality is an unfortunate part of conducting this necessary wildlife research. If any animal dies within 30 days of being captured, it is considered a capture mortality. When capturing sheep it is possible that an animal can fall to its death or have a severe injury. If a severe injury occurs—for example, a broken leg—the capture team must euthanize the animal. When this occurs, it is recommended that the capture team transport the animal to the laboratory for autopsy. Note that methods of euthanasia and humane killing should follow the AVMA Guidelines on Euthanasia 2007 or the Guidelines for Euthanasia of Nondomestic Animals, 2006, American Association of Zoo Veterinarians.

Immobilizing wild mountain sheep is not recommended. "Immobilizing sheep using a dart gun is the least preferred way for wild sheep capture. Net gunning has similar result without the time or problems associated with darts,

immobilizing drugs, induction and recovery periods" (Foster, C. 2004, p. 22). The dart gun can be used with an aircraft or from the ground. When it is used with helicopters there is no benefit to using it instead of the net gun. Accuracy with use of the dart gun is much more critical and difficult, increasing the chance of missing the animal.

Ground darting can be a useful way of capturing specific sheep because an aircraft is not required for the capture thus significantly decreasing cost. This method, however, is more popular in areas where sheep are more accessible from the road like areas in the western United States. In compliance with the previous recommendation, the Alaska Department of Fish and Game does not capture sheep using immobilizing drugs. The drugs takes approximately four to seven minutes to work and during this time, sheep can access terrain that is dangerous for both the sheep and the capture team (AKSupersite, 2014). Use of immobilizing drugs also requires access to the pharmaceutical drugs and special training to use the drugs increasing the risk and cost.

The preferred method for capturing the Dall's sheep is the net gun. It is preferred because specific sheep can be targeted in a fast, safe and efficient manner (Foster, C. 2004, p. 22). The purpose of capture is to sample the required number of sheep in the most efficient manner while causing minimal stress to each animal. The net gun operation does however, require an experienced team because of the mountainous environment and danger associated with capturing sheep from a helicopter. There are several reasons for this outlined below.

The capture team should be a highly experienced team, all of whom are skilled and able to accomplish their duties on command. There are demanding physical requirements when it comes to moving on mountainous terrain and is even more difficult with the added stress when required to move toward the captured animal. The capture team, consists of four personnel and two contracted aircraft. The first aircraft is the Hughes 500D Helicopter. It seats five personnel; however for this operation, there will only be three personnel: the pilot, the net gunner, and the capture assistant. The second aircraft is the PA-18 Super Cub. The Super Cub is a two-seat, single-engine aircraft; however, only the pilot flies in this airframe and serves two rules. The main role the pilot is responsible for is aircraft safety when flying. The second role is acting as a spotter.

The two aircraft and four personnel work together as a team. The fixed wing pilot will spot sheep from the air and relay the information back to the helicopter. When the fixed wing pilot spots a sheep approaching a position that offers a possible capture, the fixed wing pilot will radio the helicopter. The helicopter then travels toward the location relayed to them. The purpose of this is to minimize cost by not running the helicopter when there is not a sheep spotted. The helicopter pilot will travel toward the location of the sheep and drop off the capture assistant prior to netting. The pilot and net gunner pursue the sheep until the sheep is in the right position to deploy the net.

The net gunner serves an important role in capturing the sheep. The net gunner must be aware of the sheep's location and aircraft's positions relative to the net gun. As the aircraft approaches the sheep, the countdown starts when the sheep responds to the aircraft. The net gunner must wait for the sheep to be in a location that is appropriate to deploy the net. The pilot moves the animal until it is in a safe capture location. The capture position of the sheep is critical to mitigating the risk of a capture mortality. The preferred scenario is when the sheep starts traveling just uphill, which causes the animal to slow. Preferably the animal is also on snow, further slowing its speed and when the net covers the animal causing it to fall it does not impact the ground as hard. The capture location should prevent the animal from rolling or falling off of cliffs. When the animal reaches this position, the net gunner deploys the net. Once the net gun is deployed, capturing the sheep, the helicopter pilot hovers on the mountain allowing the net gunner exits the aircraft. The helicopter will pick up the capture assistant and return to capture location and drop them off. Once the capture team is positioned on the mountain, the helicopter will land and remain out of the way during the remainder of the sampling process.

For each capture, a data record will be completed on the Alaska Department of Fish and Game's sheep capture form. These forms will be prepared and printed prior to the field research. The document will assist in capturing all required data for final reporting at a later date in the office. The capture assistant is required to complete this form during the capture. Some data on the form may not be required depending on the research that is being conducted. It is the project manager's responsibility to determine applicable data and communicate this prior to the capture. On the form each animal will be given a capture number. The recommended numbering method is the two-digit year and number captured (ex. 15-01 for 2015 animal capture 1). Note that these numbers need to be tracked to ensure other studies within the state have not assigned sheep the same capture number.

Several items of equipment should be known and available for each capture. The hobbles are used for each animal as they are removed from the net. Hobbles are made of leather or plastic and are pliable in cold weather (Foster, C. 2004, p. 21). The fore and aft leg will be hobbled together keeping the animal sternal during capture (Foster, C. 2004, p. 21). The blindfold used for sheep should cover the eyes but it is important it does not disrupt breathing by covering the mouth or nose. The blindfold should be made of a nonabrasive material and be secured on the animal with Velcro or quick snap buckles. A minimum of 12 hobbles and blindfolds should be maintained during the capture session. The thermometer preferred for sampling is the digital thermometer. Ensure that it reads up to 110 degrees.

SAMPLING

Each capture team member knowing their agencies standard operating procedures will assist in keeping the capture times down so all samples may be taken for a successful capture. "Standardized sampling protocols, training, and testing standards should be followed as closely as possible to ensure quality, and consistency in interpretation of results" (WAFWA, 2015, p. 4). Additionally, it is of the utmost importance to know and "use the appropriate protocols for collection and handling of samples" (WAFWA, 2015, p. 4). The priorities of work are found below in Figure 5: Sampling Priorities. The priorities of work are important in case the capture team should run out of time before all samples are taken and they are required to release the sheep. During this period it is important to remember to remain calm and not raise one's voice around the animal, which can increase the stress and movement of the animal. When the capture team is stressed the members will tend to not be as smooth in their movements and not as clear when communicating causing more time to be wasted.

Figure 5: Sampling Priorities

1. Temperature monitoring
2. Nasal & pharyngeal swap
3. Blood
4. Body condition assessment
5. DNA ear punch
6. Fecal
7. Weight

(Lohuis, T. 2015)

At this time, the capture assistant is continuing to watch the clock, and the team begins their sampling process. The sheep then will be removed from the net, hobbled, and blindfolded as previously approved by the Alaska Department of Fish and Game. Once this is completed, the rectal thermometer is inserted for the remainder of the capture and the core body temperature will be monitored continually during handling and data collection. If the core body temperature reaches 106F, the data collection will cease, the workup will be terminated, and the animal released immediately. This is to ensure the animal does not overheat. Once the animal is restrained and blindfolded, samples will be taken. At this point in the capture, time will be very limited. All sampling must be thorough and the required amount must be taken for the sample. An incomplete sample can cause the capture to be unsuccessful. Also ensure that the capture site remains clear of any trash or debris that the capture team is using especially any needles that could injure the team or animal.

The nasal and pharyngeal (NP) swabs will be the first sample collected. One person will take the nasal pharyngeal swab and mark the samples by the number that correlates with the animal capture number on the form. Three swabs will be collected from each animal. Two will be used for culture; one will be analyzed via PCR assay. The nasal and pharyngeal swabs will be sent to the Washington Animal Disease Diagnostic Laboratory at Washington State University to be cultured for *M. ovi* and the *Pasturellaecae* that are known to cause pneumonia in bighorn sheep.

The second sample type taken at capture will be the blood draw. Approximately 60-75 ml of blood will be collected from each adult animal via jugular venipuncture and can be used to determine physiological condition, disease exposure and genetic profiles. The blood kit will be used during the sampling. Blood samples are fragile and proper collection, handling, processing and storage must occur (Foster, C. 2014, p. 24). If the samples are destroyed at any point during the process it can render the project unsuccessful. The team must ensure the proper amount of blood is taken and the vacutainers are stored properly. Ensure all sharps are properly contained. 1.5 ml aliquots of serum will be sent to Washington Animal Disease Diagnostic Laboratory for serology to determine if exposure to the following viral diseases has occurred; Infectious bovine rhinotracheitis IBR, Parainfluenza-3, (PI-3), Bovine viral diarrhea (BVD), Johnes disease/paratuberculosis, Leptosporosis, Contagious Ecthyma (CE), Respiratory Syncitial Virus (RSV), Ovine Progressive Pneumonia (OPP), Malignant Catarrhal Fever MCF), Q fever, Toxoplasmosis, Brucella Ovis and Bluetongue/ Episodic Hemorrhagic Disease (EHD) (Lohuis, T. 2015). Finally, 1.5 ml aliquots of serum will also be archived and stored in an ultralow (-60C) freezer at the Alaska Department of Fish and Game Archive in Anchorage, Alaska.

If a radio collar is chosen to be used during the project, it will be put on during this time. It is installed following the blood collection as it would be in the way during the draw. The current budget and research question does not support collaring for this project currently however may be adjusted in the future. During this operation, radio collars with not be used and sheep with collars will not be captured. Radio collared sheep may be used to help determine sheep herd location though if there has been collared sheep from previous research occur in the area prior.

A body condition assessment will occur during the sampling. According to Craig Foster's Capture Guidelines, a full physical examination to evaluate their physiological responses, body condition, general health and suitability is important for all captures especially if there is a related trauma or complications (2014, p. 22). This physical examination data will be documented in the applicable areas on the Alaska Department of Fish and Game's sheep capture form provided. When taking the pulse, the capture lead will take the pulse while the capture assistant documents the results.

DNA sampling is next priority. Using an ear punch, the capture team will sample either ear.

The second to last sample to collect during handing is the fecal sample. Fecal samples will later be analyzed at Washington Animal Disease Diagnostic Laboratory via Baermann screen for quantitative assessment of lungworm larvae.

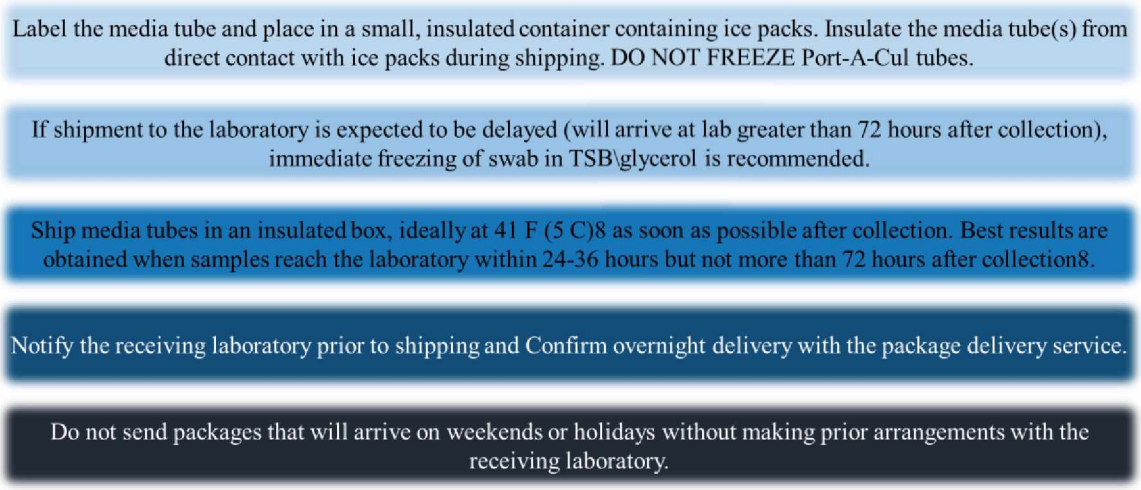
The final sample collected is the weight. It is important to ensure the capture team is in a safe location to lift the sheep for weighing. Using an avalanche shovel handle and a scale, the capture team will lift the animal from its hobbles and record the weight.

Once all sampling is complete, the final temperature will be recorded and the animal will be released. To do this, the capture team will remove the blindfold and hobbles being aware of the animal's response to being freed. At this point, all equipment will be organized and picked up. Ensure that all sharps are contained in the sharps containers and there is no equipment or trash left on the capture site. Communicate back to the helicopter for pickup and continue the capture process.

SAMPLE HANDLING

Once all of the samples are compiled, at the soonest available point the samples should be sent to the diagnostic laboratory. Depending on the how remote the capture location is there may be daily shipments of samples or every several days there may be a shipment required. In Figure 6: WAFWA's Sample Preservation and Shipping Guidelines, you can find the recommended standards for preservation during shipping.

Figure 6: WAFWA's Sample Preservation and Shipping Guidelines



(WAFWA, 2015, p. 19)

The samples will be analyzed specifically for the items notated on the laboratory order form. Once the samples are complete the laboratory will send the results back to the Alaska Department of Fish and Game. The project manager will review the sample results and develop the conclusions and report on them in the Federal Aid Performance Report and the Alaska Department of Fish and Game Research Report. Both reports will be published and available to the public. It is important that when documenting the results, the project manager uses the standardized terminology that can be found in WAFWA's Bighorn Sheep Herd Health Monitoring recommendations as well as interpret the diagnostic results in accordance with any observations or previous health history available (WAFWA, 2015, p. 7). The conclusions from the study will be used later for other studies. The health baselines developed will be used specifically in herd management plans.

Developing and maintaining relationships within the wildlife community is critical. These relationships assist wildlife agencies, diagnostic laboratories, and wildlife health professionals to share best practices and grow their network (WAFWA, 2015, p. 4). The Alaska Department of Fish and Game uses the Washington Animal Disease Diagnostic Laboratory for this very reason. "A variety of factors can impact how laboratory results should be interpreted therefore, agencies should consult with the testing laboratory and wildlife health professionals for their assistance in interpretation of this data" (WAFWA, 2015, p. 7).

The Alaska Department of Fish and Game Archive in Anchorage, Alaska, is used to store samples indefinitely. Samples are taken specifically for this reason. The Alaska Department of Fish and Game complies with WAFWA's recommendation by storing frozen sera, tissues, swabs and air-dried skin, blood and hair may indefinitely for retrospective use in disease, genetic and forensic studies (2015, p. 7). The department however does not store their samples collected with pharyngeal swabs as it is unneeded since the diagnostic laboratory analyzes the samples. "Nasal and tonsil / pharyngeal swabs collected by the standard techniques described in the appendices can be placed in brain heart infusion (BHI) broth with 10% glycerol and stored at –70 C for later culture if needed" (WAFWA, 2015, p. 7).

SAFETY

In every workplace, safety is of the utmost importance. This is no different throughout this project, especially in the field during the capture period. There are many dangers that the capture team must be aware of. Animal handling is dangerous not only for the handlers but the animals as well. The terrain where the captures occur is hazardous and increases the risk level for the operation. The steep, rocky, and snowy environment increases the chance for slipping and falling. The terrain is also known for its avalanche hazards so the capture team must be trained in such area. There is also risk for rocks to fall from above and must at all times be aware of the surroundings. There is great risk for the capture team when conducting their work on the mountain, especially with the limited amount of time

available for handling the animal and the number of samples required for a successful capture. During this process it is important to be aware of handling the live wild animal, needles and chemicals. It is important to communicate to the capture team when needles are being used and to have the sharps container ready to place the used needle in when complete.

Prior to and throughout the operation daily operations meetings should occur. The first meeting to occur should be conducted before the operation. Here the project manager should review the operation and capture actions completely. A morning safety meeting should occur with the team where each member can do a quick talk through of each person's duties. This will help ensure each team member knows and is aware of each member's actions in the aircraft and on the mountain. After each daily capture period is complete, the team should review their operations and conduct a lessons learned. This can significantly assist in the following days' work, increasing communication, productivity and safety.

REPORTING

After returning back to headquarters from the field work, the capture team will cleanup from the capture season. If not conducted in the field, a thorough debrief will occur documenting lessons learned from the capture season to incorporate in the closeout. Once these tasks are complete, the only resource available to complete the remaining work is the project manager.

Once the sample results are received back from the diagnostic laboratory, the project manager will review the results and begin writing the Federal Aid Performance Report and the Alaska Department of Fish and Game Research Report. Once complete these reports are published and filed. The closeout process is to occur based on the schedule.

CONCLUSIONS AND RECOMMENDATIONS

Beginning the literary review process it was not known what would be found by reviewing the documents and best practices. By doing such research, the project manager has been able to substantially increase his knowledge on the subject, such that a thorough and realistic plan could be completed. During this process there are several recommendations for the Alaska Department of Fish and Game and the research biologists managing projects. Based on the departments background review and literary research conducted, there are three recommendations to the Alaska Department of Fish and Game. The first recommendation is to utilize a standardized process and methodology for managing all of their projects. The second recommendation is to utilize a scheduling tool for planning and executing the projects. The final recommendation is to increase their documentation throughout the entirety of the project.

The first recommendation applies to the management of research projects by the project managers (research biologists). Use of an existing, standardized project management process is recommended. The process used to complete the execution plan by the project manager was derived from the Project Management Institute's Project Management Body of Knowledge. This source has organized the global standard for managing projects and is used and respected by organizations. Though PMI's Project Management Body of Knowledge does not explain how to apply these processes specifically, knowing and understanding the standards will allow the processes to be applied appropriately. There are several books that explain the process and how to apply it in a much more descriptive manner, allowing the project managers to use the standards provided in the Project Management Body of Knowledge. A different process may be chosen by the department however, the process should include management of the five standard process groups, initiation, planning, and execution, monitoring and controlling and closing. Using these process groups will assist in completing a research project from beginning to end. Thorough management of all of these process groups will correct many issues as they are found during all phases of the project. If this recommendation is applied, the two following recommendations will be more easily corrected.

A scheduling tool is recommended for projects managed by the Alaska Department of Fish and Game. Currently no scheduling tool is used. The two most widely used scheduling tools in organizations are Microsoft Project and Oracle's Primavera. Though the tool used for development of the execution plan is Microsoft Project 2013 any scheduling tool used by the department will be of great benefit to all projects. It will greatly increase the project

manager's awareness and ability to manage the project. Using the scheduling tool to analyze resources, budgets and timelines will assist in several ways. By scheduling each project dynamically, the project team will be able to understand the timeline in which the project (down to the work package level) can realistically be achieved. Once an initial schedule is built, the team can input changes or determined risks into the schedule to be able to see the effect to the timeline and budget. The scheduling tool will also allow the project manager to track costs and allowing for management of the project budget. Though currently not required by the department, use of a scheduling tool would allow the project manager to have the ability to build customizable reports for more specified management and briefings.

The final recommendation for the Alaska Department of Fish and Game is to complete a thorough documentation process. Though all information is being completed, to include budget requirements, data analysis and reporting, a thorough documentation process will benefit not only the project manager but the department as well. Currently if there is a required change of project manager at any point through the project, there is the potential for a delay or the project could not be completed due to not having a thorough plan documented. Completing such documentation will assist the executing project manager. Additionally, by completing thorough documentation throughout the project, when an audit occurs the department will have the required information readily available to provide the auditors, assisting the process and saving resources. By creating and documenting a project management plan similar to the recommended execution plan, the project manager would benefit in having the initial documentation required. This recommend plan can be used as a template and printed and saved electronically for reference or to build a new plan in the future.

OPPORTUNITIES AND FUTURE DEVELOPMENTS

Throughout development of the research paper and execution plan, the project manager has gained much insight into how the Alaska Department of Fish and Game manages their research projects within the sheep biology department. Though the projects are currently being planned and executed successfully there are several areas in which this organization has opportunities to develop and better their project management methodologies. Below you can find several recommendations for future work to be completed.

The Alaska Department of Fish and Game would benefit in many areas by adopting and incorporating a set of project management methodologies. If used and integrated into their project management plans (research plans), the personnel using these plans would begin to develop their own preferences and templates. These templates created would be saved and available for access in a shared drive that can be accessed by all department employees. By building templates and best practices, there are opportunities to save time on projects by utilizing these templates. It is recommended to use the provided execution plan or to develop an initial project management plan to be used as a template. This template should be shared with an explanation of how to use and what the intentions are of going to a standardized plan. This would be shared through email or through meetings and accessed on the shared drive.

Organizational project management maturity is a standard in which the Alaska Department could benefit and grow from. "The purpose of this Standard is to provide a way for organizations to understand organizational project management and to measure their maturity against a comprehensive and broad-based set of organizational project management best practices" (PMI, 2003, p.24). The organizational project management maturity model is composed of three elements; knowledge, assessment and improvement. These elements allow an organization to develop their organizations project management maturity level based on self-examination and development. In the future, the Alaska Department of Fish and Game can utilize this model to determine and continue evolving their organizational project management maturity level that they self-identify. The department could utilize a full time manager, hire a full time manager or hire a contractor to manage this program. It would benefit the department significantly through the future.

Another potential opportunity to grow the department's organizational project maturity is the creation of a project archive. Creating a shared drive to better the documentation that occurs in the closeout process group and can benefit the organization for years to come. Being able to refer back to all projects and the documentation can have a lasting benefit. Having this type of archive has the opportunity to assist in building risk assessments, schedules, budgets and in developing future plans.

Acknowledgments

It is important to take a moment to list the key stakeholders for the project that made it successful. These individuals were key to building the project management knowledge base used in development of the execution plan. Without this, the deliverables would not be what they were.

Project Sponsor - Thomas Lohuis
Primary Advisor – Roger Hull
Committee Member – LuAnn Piccard
Committee Member - Seong Dae Kim
Administrative Staff – MSPM Department Staff

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Execution Plan

Project Name: Dall's Sheep Herd Health Assessment

Project Manager: Jeffrey Vance Johnson, UAA, MSPM Student
Project Sponsor: Thomas Lohuis, ADFG, Wildlife Biologist
Project Committee: Roger Hull, UAA, PM Dept. Instructor
LuAnn Piccard, PM Dept. Instructor
Seong Dae Kim, PM Dept. Instructor

Prepared By

Document Owner(s)	Project/Organization Role
Thomas Lohuis	Project Sponsor
Jeffrey Vance Johnson	Project Manager

Project Management Plan Version Control

Version	Date	Author	Change Description
1	30 Jan 15	Vance Johnson	Document created
2	19 Feb 15	Vance Johnson	Significant additions to PMP and subsidiary plans
3	15 Apr 15	Vance Johnson	Risk management plan updated
4	12 Jun 15	Vance Johnson	Resource management plan updated
5	25 Aug 15	Vance Johnson	Appendix F (Supplies) added
6	07 Sep 15	Vance Johnson	Significant additions to PMP and subsidiary plans
7	10 Sep 15	Vance Johnson	Project Sponsor review changes
8	14 Oct 15	Vance Johnson	Editing

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ABSTRACT

Assessing Dall's sheep herd heath is the first step to population monitoring and is key to managing the resource. The ADFG will conduct health testing to develop a baseline data set to determine presence and prevalence of wildlife diseases in wild mountain sheep populations in south-central Alaska. To develop the baseline, three to seven years of disease study work will be conducted by capturing 30-40 sheep annually for samples. These samples will be analyzed to determine what types of disease, bacterial and viral currently exist in the population. Annually, a different mountain range will be sampled to build the knowledge base. This knowledge base will build a foundation for study of Alaska's Dall's sheep population for years to come. In the event that there is an all age die off, like those seen in the Northwest U.S. bighorn sheep herds, the ADFG will be able to refer to the samples collected and determine if the disease already existed in the population or if there was an external introduction. This execution plan is designed to be picked up and used with minimal planning required aside from reviewing the plan assigning resources, ordering supplies and executing.

1 SCOPE STATEMENT

1.1 BACKGROUND

Bighorn sheep (*Ovis Canadensis*) have experienced all age die offs since the 1900's. These outbreaks have caused as much as 80 and 90 percent mortality of their population and have compromised reproduction affecting the herd population for extended periods of time. Though Alaska has not experienced an all aged, non-localized die off of this magnitude in their thin horn Dall's sheep (Ovis Dalli) population, the Alaska Department of Fish and Game (ADFG) will conduct a health assessment to develop a baseline. This will determine what disease is currently in the population and if an all age die off did occur, we would be able to refer to the data collected to determine if the introduction to the population was indigenous or foreign.

The Dall's Sheep Herd Health Assessment is a 3-7 year study conducted to systematically screen for infectious disease through multiple mountain ranges with an initial annual budget of approximately $50,000. Each year within 01 March to 10 April, 30-40 Dall's sheep will be captured for blood draw and swabbing samples followed by external lab analysis. This work will be documented in an initial and final report. Ultimately a baseline sample will be established and documented in preparation for future disease studies. Though this is a multi-year project, this plan is designed to be reapplied for each year's research.

1.2 SCOPE STATEMENT

The Dall's Sheep Herd Health Assessment scope is to conduct a study to systematically screen for infectious disease. The research will occur in Southcentral Alaska with an initial annual budget of approximately $50,000. A 4 day period will occur between 01 March and 10 April, where 30-40 Dall's sheep will be captured for blood, throat and fecal samples. The samples will be analyzed at a state external lab. The findings will be documented in a Federal Aid Performance Report and an ADFG internal final report. Should there be a significant finding during the project, a decision point will occur to determine if the project will continue as planned or to modify the plan to research the finding.

The official project will start with the annual approval from the project lead.

The official project completion will with delivery of the final report.

1.3 OBJECTIVES

The objectives of the Dall's Sheep Herd Health Assessment are:

- Investigate presence and prevalence of wildlife diseases in population
- Capture sheep to take samples and analyze results

1.4 DELIVERABLES

There are several deliverables required to be completed for this project to be successful. The project manager is responsible for the completion of the deliverables. The deliverables for the Dall's Sheep Herd Health Assessment PMP are:

- Federal aid performance report due 01 September 2016
- Internal final report due NLT 60 days after research completion
- Samples saved in local archives

1.5 EXCLUSIONS

Exclusions for the Dall's Sheep Herd Health Assessment are:

- Blood, fecal and nasal and pharyngeal samples will be analyzed at an external lab
- Employees' wages are not paid from project budget

1.6 ASSUMPTIONS

Assumptions for the Dall's Sheep Herd Health Assessment are:

- Weather will allow enough time for capture work to be conducted
- Funding will not be canceled
- Another project will not take precedence

1.7 CONSTRAINTS

Constraints for the Dall's Sheep Herd Health Assessment are:

- Only one staff member is allocated to the project fulltime

	TIME	PERFORMANCE	COST
CONSTRAIN			✓
ENHANCE	✓		
ACCEPT		✓	

1.8 REQUIREMENTS

The following are requirements for the project;

- Execution Plan to include
  - Current best practice capture processes and guidelines – The document is to be referenced for capture guideline in the PMP. These guidelines will be used and do not require any further documentation or research.
  - Current WAFWA Bighorn Sheep Herd Health Monitoring Recommendations – These recommendations are completed by a peer group who conduct herd health monitoring regularly. The ADFG will use these guidelines for the capture work and do not require any further documentation or research.
  - Simple, succinct, executable and modifiable document as determined by ADFG.
  - Hard copy furnished in binder along and cd including final document in adobe and electronic modifiable format (word, excel, project).
- All PM686A & 686B requirements

1.9 CRITICAL SUCCESS FACTORS

The Dall's Sheep Herd Health Assessment will be successful if the following are accomplished:

- 30-40 sheep were captured for samples
- No injuries occurred during project
- Budget is not exceeded

2 SCOPE MANAGEMENT PLAN

The scope management plan documents how to manage, control and verify the project scope and what is communicated. It includes all of the work and only the work. The scope management plan is the project managers' responsibility. Scope will be managed through effectively verifying and controlling scope outlined in the change control process.

2.1 WORK BREAKDOWN STRUCTURE

The WBS shows all of the work to be completed. The project is divided by time frames excluding the project management. The WBS will be created in conjunction with the master schedule using Microsoft Project 2013 and WBS Chart Pro. These programs are recommended for use. The Work Breakdown Structure (WBS) can be found in Appendix A.

2.2 SCOPE VERIFICATION

Scope creep is a real risk for any project. Confirming that the project does not deviate from the defined scope must be accomplished. The project manager will review the scope statement. This will ensure that the scope is current, does not require modification and that the project is on schedule. Any work that is not included within the WBS and the master schedule is not in scope. If at any point the scope statement needs modified, the change control process will be adhered to.

Upon approval of the capture location the project will require updating to include the schedule, logistics and maps.

2.3 CHANGE CONTROL PROCESS

The purpose of the change control process is to document and control changes throughout the project. This will ensure that all proposed changes are defined, reviewed, documented and communicated as they are approved or denied. Changes will be documented to assist in writing the final reports.

If a change is requested to occur to the scope a change request using the standard template. All change requests must be documented on the table below and the request must be saved for project closeout.

The project manager has the authority to make any changes required to the project that does not violate the Federal aid request.

Number	Description	Approval	Date
Ex.	Enter description	Approve/Deny	mm/dd/yyyy

3 REQUIREMENTS MANAGEMENT PLAN

The requirements management plan describes how the project requirements are determined, analyzed, documented and managed. Project success is directly influenced by stakeholder involvement in determining what is required for a project to be deemed successful.

3.1 REQUIREMENTS TRACEABILITY MATRIX

Requirements will be planned, tracked and reported on the requirements traceability matrix. The matrix can be found with the WBS dictionary in Appendix D (RTM).

3.2 REQUIREMENTS PRIORITIZATION

Requirements prioritization are a key part of requirements management. Requirements determine the scope, time and cost impacts of the project. By completely understanding the stakeholder's requirements, requirements may be added or cut appropriately if necessary. Requirements will be given a low medium or high scale in order to determine priority.

Priority	Definition
Low	These requirements are quality or functional enhancements and are not necessary if time or resources permit
Medium	These requirements support product and process operations but can be completed at a later date
High	These requirements are critical to the project and required for success

4 SCHEDULE MANAGEMENT PLAN

The schedule management plan describes how the project schedule will be analyzed, documented and managed. Project success is directly influenced by schedule management.

4.1 MASTER SCHEDULE

The project master schedule contains all of the work to be accomplished. The schedule will be completed on Microsoft Project 2013 and at a minimum include the task name, resource, cost, work (in hours), and predecessors. The master schedule can be found in Appendix B. Again, Microsoft Project is a recommended scheduling tool. There are several other tools available to accomplish the same task.

4.2 SCHEDULE MAINTENANCE

The project manager is responsible for all work related to maintaining the schedule. The schedule will be maintained as the work is completed. Any work that is being accomplished on the project must be incorporated and tracked on the schedule. If work is being completed that is not on the schedule it must be added and tracked. The master schedule will be updated weekly to track work completion.

4.3 STATUS REPORTING

The project manager will monitor and track all hours using the scheduling tool. As tasks are completed the work hours will be tracked for time management and schedule modifications for future years research.

5 RESOURCE MANAGEMENT PLAN

The resource management plan describes how the resources will be used as well as their cost. Project success is directly influenced by schedule management.

5.1 BUDGET

The funding for this project is being supplied through federal aid. The budget of the plan is approximately $50,000 annually. This budget is used to finance the following; aircraft and pilot, supplies and lab fees. The project manager has the authority to allocate funding within the allocated budget and project scope.

Budget:

Hughes 500D Helicopter	33600
PA-18 spotter	11200
Supplies, drugs, sample collection eqpt.	1100
Food & supplies for personnel	1000
Disease screen	1000
Trace element screen	1000
Total cost for project	**$48,900**

The Hughes 500D helicopter budget is estimated at 4 hours of flight time daily for 7 days with a $1050 hourly rate. Flight time is calculated when the engine is running.

The PA-18 spotter budget is estimated at 8 hours per day for 7 days at 200 dollars per hour. The flight time is determined by having the pilot and aircraft available, not by flight time.

The supplies, drugs and sample collection equipment budget is estimate is based off of previous project experience.

The food and supplies for personnel budget is also derived from previous project experience.

The disease screen and blood chemical results are calculated per lab rates. Forty samples of the disease screen and blood chemical results are calculated at 20 dollars each. Overnight shipping is estimated at 200 dollars for each.

5.2 HUMAN RESOURCES

The internal project team is comprised of several members with a multitude of qualifications. The required positions are listed however, individual personnel will have to be resourced annually based on department availability. The ADFG project team consists of a project manager, a capture assistant, and net gunner. The project manager is the only full time resource for completion of the project. The capture assistant may be a temporary hire or come from within the organization. The net gunner will be temporary hire, or come from within the organization. The project manager may serve as the net

gunner or the capture assistant. For capture work there are only two required personnel, a net gunner and capture assistant. To track performance, internal employees will be given a one dollar resource rate allowing CPI to be tracked as an effort performance index (EFI). The project budget does not pay for employee salaries.

Several external resources are required. A turbine helicopter pilot and a fixed wing aircraft pilot (PA-18 Supercub) are required for capture work. All blood work will be analyzed by an external laboratory.

If volunteers are used as resources, a volunteer worksheet must be completed in accordance with ADFG policy. This reduces liability for the department if a volunteer should become injured.

5.3 DESCRIPTION OF RESPONSIBILITIES

Project sponsor – The project sponsor gives support to the project and ensures the project receives its annual funding. He/she is not responsible to work on the project however supports the project at higher levels.

Project Manager (Research Biologist) – The project manager completes all of the work required as he/she is the only full time project resource. The PM will complete all administrative duties, provide status reports, and is overall accountable. The PM is responsible for the wellbeing of the capture subjects by following the capture guidelines. The PM may serve a dual role as the net gunner or the capture assistant

Net Gunner – The net gunner is only required for the capture period. He/she is responsible for firing the net gun and ensuring it is done safely for the crew and the wildlife. Once the net is deployed the net gunner is the lead in the handling.

Capture Assistant – The capture assistant is only required for the capture period. This person may come from within the department, be a temporary hire or a volunteer. The capture assistant is responsible for assisting in capture work and wellbeing of the sheep.

5.4 RESOURCES

A fixed wing aircraft will be present as a spotter during the captures. The spotter is required 100% of the capture days. The spotter will fly solo relaying sheep locations back to the capture team.

For the captures, the use of a Hughes 500D turbine powered helicopter will be used to net adult sheep. While cost of the turbine helicopter costs approximately 50% more per hour compared to a R-44 piston engine craft, the extra power provided by the turbine engine will provide a substantial safety margin at the 5000'-6000'+ elevations where we anticipate capture operations will be conducted. The capture team will travel with the helicopter pilot. When the spotter relays approach information to the subject the helicopter will fly in and conduct the capture.

Aircraft determination will be selected using the states previously approved carrier list.

5.5 SUPPLIES

The supplies required for this project are supplied through on hand quantities and the project funds. A list of required supplies can be found in Appendix F (Supplies).

6 QUALITY MANAGEMENT PLAN

The purpose of the quality management plan is to determine the quality objectives and responsibilities that are required to complete the project. This plan also identifies the requirements for the project and how the project demonstrates compliance. The quality management plan supports cyclic process improvement.

6.1 QUALITY ASSURANCE AND CONTROL

The purpose of quality assurance is to audit the quality requirements to ensure the appropriate product is delivered. Quality assurance will be conducted through project reviews. In order to control quality, results must be documented. This will occur with the reports delivered to stakeholders in accordance with the communication management plan.

Techniques and materials used to screen will generally follow those described in WAFWA Wildlife Health Committee 2014 BHS Herd Health Monitoring Recommendations.

6.2 STATUS REPORTING

The project manager will complete status reports as required by the department.

6.3 METRICS

To ensure the project delivers the requirements, the project manager will use the metrics provided below. These metrics will be collected for status reports per the department requirements.

Capture mortality less than 3% - The capture mortality metric will be used to ensure there are not an increase in sheep capture mortality. For every sheep mortality the project manager will document the reasons in the lessons learned to assist future captures in minimizing mortality. It is important to note that this research is not worth killing sheep over. This project is being conducted to assist in future wildlife research. Note that methods of euthanasia and humane killing must follow the AVMA Guidelines on Euthanasia 2007 or the Guidelines for Euthanasia of Nondomestic Animals, 2006, American Association of Zoo Veterinarians.

Sample size minimum of 20 - A sufficient sample size is required to draw a conclusion and produce accurate results. Though the sample goal is 30-40, the smallest sample to produce the data required is 20.

Average capture rate of 6 sheep daily – If the capture rate is too low for whatever reason, the project will be unsuccessful if the sample size minimum is not met. This sample size may only be met with the daily capture rate average.

Sample success 100% - Though the capture goal is 6-10 sheep sampled daily it is of utmost importance that the when sheep are sampled the samples must be of the required size and quantity specified. If a sheep is sampled and the samples are not large enough the impact on the animal is not worth partial sampling.

Blood volume sample size of 3 x 1.5 cc vials – A sufficient blood volume (plasma or serum) size minimum of 3 x 1.5cc vials is required for this project. Two vials will be used for studies and one vial will be stored in the archives.

6.4 RESEARCH APPROACH

For each capture a data record well be completed via the Sheep Capture Form. These forms will be prepared and printed prior to the field research. The document will assist in capturing all required data for final reports at a later date. The capture assistant is required to complete this form during the capture. Some data on the form may not be required per the research being conducted. It is the project manager's responsibility to determine applicable data.

The sampling priority is completed as follows;

1. Continuous temperature monitoring (rectal)
2. Nasal and pharyngeal swabs
3. Blood
4. Body condition assessment
5. DNA ear punch
6. Fecal
7. Weight

The nasal and pharyngeal (NP) swabs will be the first sample collected. Two swabs will be collected from each animal. Two will be used for culture; one will be analyzed via PCR assay. The nasal and pharyngeal swabs will be sent to the Washington Animal Disease Diagnostic Laboratory (WADDL) at Washington state University to be cultured for M. ovi and the Pasturellaecae that are known to cause pneumonia in bighorn sheep.

The second sample to be taken at capture will be the blood sampling. Approximately 60-75 ml of blood will be collected from each adult animal via jugular venipuncture. 1.5 ml aliquots of serum will be sent to WADDL for serology to determine if exposure to the following viral diseases has occurred; Infectious bovine rhinotracheitis IBR, Parainfluenza-3, (PI-3), Bovine viral diarrhea (BVD), Johnes disease/paratuberculosis, Leptosporosis, Contagious Ecthyma (CE), Respiratory Syncitial Virus (RSV), Ovine Progressive Pneumonia (OPP), Malignant Catarrhal Fever MCF), Q fever, Toxoplasmosis, Brucella Ovis and Bluetongue/ Episodic Hemorrhagic Disease (EHD) (Lohuis, T. 2015). Finally, 1.5 ml aliquots of serum will also be archived and stored in an ultralow (-60C) freezer at the Alaska Department of Fish and Game Archive in Anchorage, Alaska.

The third sample to be taken is the DNA ear punch and the final sample to be collected is the fecal sample. Fecal samples will later be analyzed at WADDL via Baermann screen for quantitative assessment of lungworm larvae.

7 COMMUNICATIONS MANAGEMENT PLAN

The communications management plan provides a framework for the communications used throughout the project. It will serve as a guide for communications throughout the life of the project and will be updated as necessary. This plan identifies the roles and responsibilities of the stakeholders in this project. It provides the who, what, where, when, why, and how communications are used. The project manager will ensure the project communications management plan is planned, implemented, monitored and controlled during this project.

7.1 INFORMATION DISTRIBUTION

Information sharing will be accomplished primarily through meetings, phone calls and email. Any documents to be shared will be accomplished through email. The final Federal Aid Performance Report will be distributed directly to the contact per the federal grant. The ADFG internal final report will be published on the ADFG research homepage.

7.2 REPORTING

Reporting is not required during this project however, any deviations from the budget should be reported if additional funding is require.

7.3 FIELD COMMUNICATION

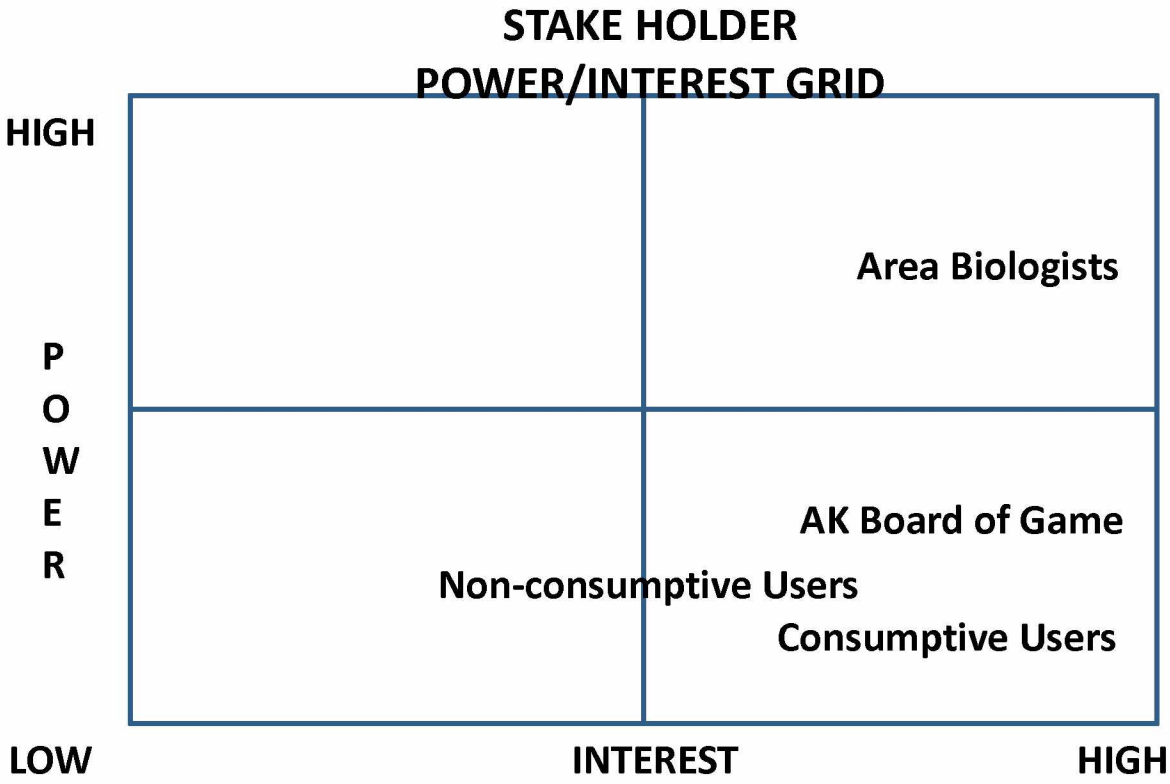
While performing field work the aircraft will monitor appropriate frequencies for communication per FAA requirements. If applicable to the capture area, both aircraft will have the FM frequency sheet of sheep in the area with FM radio collars, ensuring previously captured sheep are not recaptured. Tracking of previously captured sheep will assist in locating sheep herds as well.

All communication equipment will be tested during the planning phase of the project. Avalanche beacons will all operate on the international standard 457 kHz. The ICom handheld radios will operate by department standards. The ATS receiver/scanners and CSI telemetry receivers will be used with the sheep frequency list from previous capture work.

7.4 STAKEHOLDER ANALYSIS

The stakeholder analysis is a base requirement for a successful project. The stakeholder register analyzes each stakeholder through several parts. There is identification information that gives their organization, title, location, project role and contact information. The second section displays their assessment information that includes major requirements, measures of success, expectations, primary concerns and any other necessary notes. The third section displays their classification by their current level and desired level of support, relationships and other notes. The final section is

communication and breaks down the mode, frequency, level of detail, format and other notes. The stakeholder register can be found within Appendix E.



8 RISK MANAGEMENT PLAN

The risk management plan provides a framework for the risks associated with the project. It will serve as a guide for managing and responding to risks throughout the life of the project and will be updated as necessary.

8.1 RISK MANAGEMENT

The purpose of the risk management plan is to establish the structure in which risks will be managed and avoided or mitigated. Risk management for this project includes identification, qualitative analysis, and mitigation and planned risk responses. A quantitative risk analysis will not be completed for this project due to no costs being associated to the project. Risks can be identified by any stakeholder and the project manager will document all risks.

The project manager will monitor and control risks by regularly reviewing the risk register and incorporating any risks that were identified for that week into the status report. If an identified or unidentified risk occurs, the project manager will execute the risk response then update the risk register accordingly.

8.2 RISK MANAGEMENT APPROACH

The approach to be taken to manage risks for this project includes a qualitative process by which risks will be identified, responded to, accepted or mitigated. Risks will be associated to all applicable tasks for risk tracking. As risks occur, they will be documented and responded to if applicable. Upon the completion of the risk, the project manager will analyze each risk to determine if the risk was managed properly or if any additions should be made.

8.3 RISK IDENTIFICATION

Risk identification is conducted through personal experience of the project manager and review of previous projects with similar scope.

8.4 RISK QUALIFICATION

In order to determine the risk level of identified risks, a qualitative likelihood and impact factor is assigned to each risk from 1-5. For likelihood, a one is not likely, 3 is likely and 5 is very likely. For impact, 1 is negligible, 3 is marginal and 5 is significant. The total of these values after being multiplied by each other determines the risk level. A risk level of 1-7 is low, 8-15 is moderate and 15-25 is high. Due to the significance of this project all risks will be responded to appropriately however if two risks occur at the same time the risk with the highest risk level will be responded to first.

Once the risk levels are assigned, the project manager determines the response type. The response types primarily used are mitigate, transfer and accept. If a risk is

mitigated the risk level will be re-calculated. These post-mitigation scores will be used for response priorities.

8.5 RISK MONITORING

Risk monitoring is a continuous process and is done daily throughout the project. As risks are expected to occur or do occur during the project, the pre-planned responses will be implemented and the risk will be documented on the risk realization matrix. As additional risks are identified, they will be added to the risk register.

8.6 RISK REGISTER

The risk register for this project is a log of all identified risks. Each risk explicitly states the name, description, initial likelihood/ impact and risk level, response, secondary likelihood/ impact and risk level and the owner. The risk register can be found in Appendix C.

The Risk Realization Matrix for this project is a log of all identified risks, their overall qualitative score, risk planning factors, secondary risk, and post mitigation/response qualitative score. Any risks that occur, including unidentified risks will be tracked on this document. The risk realization matrix can be found in Appendix C Tab 2.

9 CLOSEOUT MANAGEMENT PLAN

The closeout management plan provides a framework for the actions to be completed to consider the project completed. The project manager is responsible for all closeout actions.

9.1 FINANCIAL CLOSEOUT

The project manager will conduct a financial closeout with the applicable department staff. He/she will ensure that all contracts are closed out and all receipts are documented.

9.2 FINAL REPORTS

The project manager is responsible for the final State and Federal reports to be completed and published. The final Federal Aid Performance Report will be distributed directly to the contact per the federal grant. The ADFG internal final report will be published on the ADFG Dall's sheep research homepage.

9.3 LESSONS LEARNED

Lessons learned are an important process and will begin as soon as the project begins. The lessons learned will be documented on the lessons learned document. It is broken into two sections; planning and execution. Each lesson learned will define the success/problem, impact and recommendation. This document will be completed by the project manager but lessons learned can be provided by any of the stakeholders. This document will also be archived during project closeout.

9.4 DOCUMENTATION

Upon completion of all closeout activities the project manager will conduct a closeout of all documents. This includes assembling all documentation, scanning the documents and saving them on the shared drive within the project folder. Upon completion of the electronic file an email will be sent to all internal stakeholders for the location of the documents. Finally, two binders will be constructed with all of the documents and saved within the project manager's documents and the ADFG project library.

10 APPENDICES

10.1 APPENDIX A (WBS)

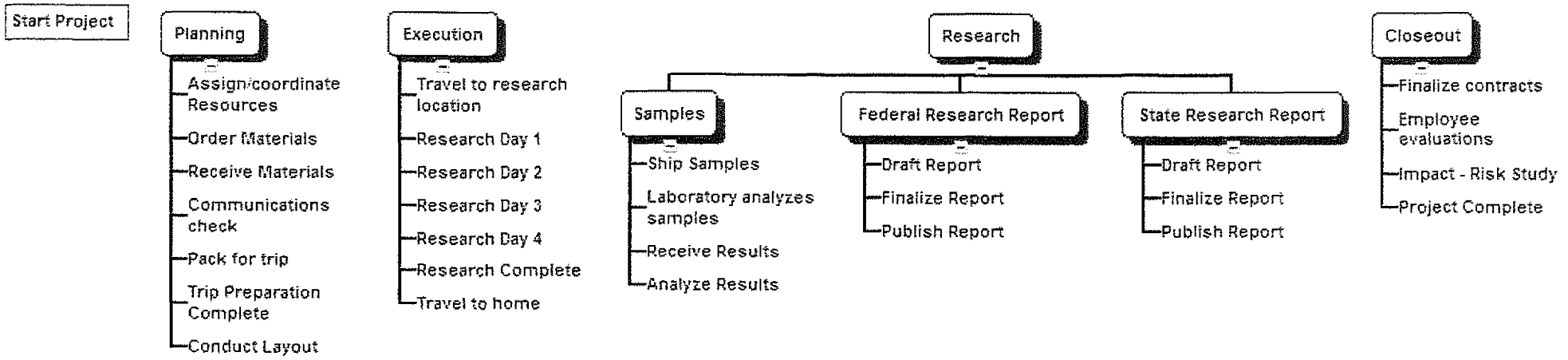
10.2 APPENDIX B (Master Schedule)

10.3 APPENDIX C (Risk Register)

10.4 APPENDIX D (RTM)

10.5 APPENDIX E (Stakeholder Register)

10.6 APPENDIX F (Supplies)


Start Project
Planning
Assign/coordinate Resources
Order Materials
Receive Materials
Communications check
Pack for trip
Trip Preparation Complete
Conduct Layout
Execution
Travel to research location
Research Day 1
Research Day 2
Research Day 3
Research Day 4
Research Complete
Travel to home
Research
Samples
Ship Samples
Laboratory analyzes samples
Receive Results
Analyze Results
Federal Research Report
Draft Report
Finalize Report
Publish Report
State Research Report
Draft Report
Finalize Report
Publish Report
Closeout
Finalize contracts
Employee evaluations
Impact - Risk Study
Project Complete

ID	Task Mode	WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Successors	Risks	Opportunities
0		**0**	**Dall's Sheep Herd Health Assessment**	**202 hrs**	**277.5 hrs?**	**Mon 7/13/15**	**Fri 8/28/15**				
1		1	Start Project	0 hrs	0 hrs	Mon 7/13/15	Mon 7/13/15		3,4	3	
2		**2**	**Planning**	**16 hrs**	**12 hrs**	**Mon 7/13/15**	**Tue 7/14/15**				
3		2.1	Assign/coordinate Resources	2 hrs	2 hrs	Mon 7/13/15	Mon 7/13/15	1	4	2	
4		2.2	Order Materials	4 hrs	4 hrs	Mon 7/13/15	Mon 7/13/15	1,3	6,5	8	15
5		2.3	Receive Materials	2 hrs	2 hrs	Mon 7/13/15	Mon 7/13/15	4	6	8	15
6		2.4	Pack for trip	2 hrs	1 hr	Tue 7/14/15	Tue 7/14/15	4,5	8	2,5	15
8		2.6	Conduct Layout	6 hrs	3 hrs	Tue 7/14/15	Tue 7/14/15	6	10,7	2	
7		2.5	Trip Preparation Complete	0 hrs	0 hrs	Tue 7/14/15	Tue 7/14/15	8	10	2,5,9,10	
9		**3**	**Execution**	**119 hrs**	**38.5 hrs?**	**Tue 7/14/15**	**Tue 7/21/15**				
10		3.1	Travel to research location	32 hrs	16 hrs?	Tue 7/14/15	Thu 7/16/15	8,7	11	E3	E4
11		3.2	Research Day 1	24 hrs	6 hrs?	Thu 7/16/15	Fri 7/17/15	10	12	2,7,9	10
12		3.3	Research Day 2	20 hrs	5 hrs?	Fri 7/17/15	Fri 7/17/15	11	13	2,7,9	10
13		3.4	Research Day 3	20 hrs	5 hrs?	Fri 7/17/15	Mon 7/20/15	12	14	2,7,9	10
14		3.5	Research Day 4	20 hrs	5 hrs?	Mon 7/20/15	Tue 7/21/15	13	15	2,7,9	10
15		3.6	Research Complete	0 hrs	0 hrs	Tue 7/21/15	Tue 7/21/15	14	16	2,7,9	10
16		3.7	Travel to home	3 hrs	0.19 days?	Tue 7/21/15	Tue 7/21/15	15	19	E3	E4
17		**4**	**Research**	**51 hrs**	**211 hrs?**	**Tue 7/21/15**	**Wed 8/26/15**				
18		**4.1**	**Samples**	**11 hrs**	**171 hrs?**	**Tue 7/21/15**	**Wed 8/19/15**				
19		4.1.1	Ship Samples	2 hrs	2 hrs?	Tue 7/21/15	Tue 7/21/15	16	20	E1, E2	13

Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

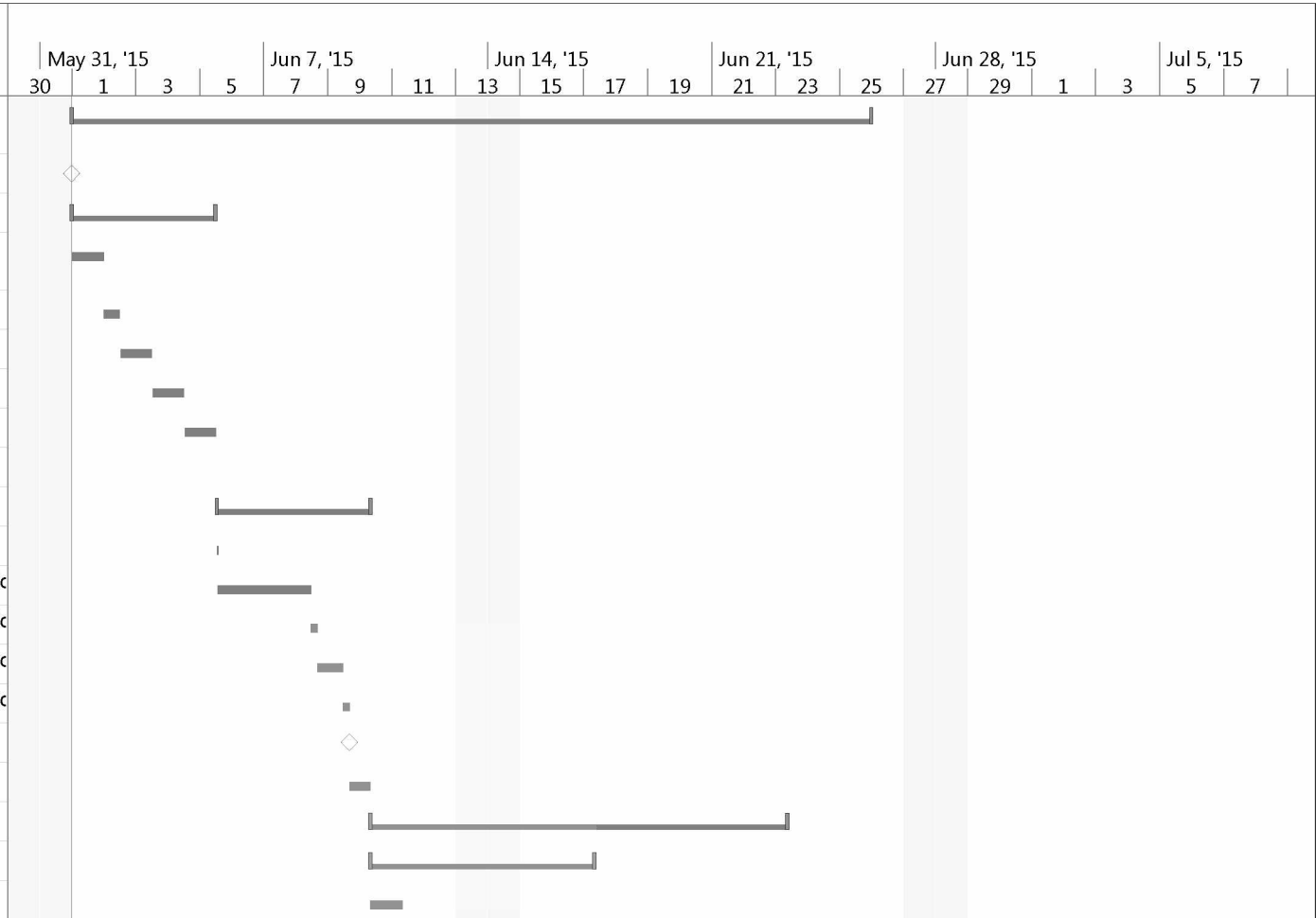
Task	Manual Task	Deadline
Split	Duration-only	Critical
Milestone	Manual Summary Rollup	Critical Split
Summary	Manual Summary	Baseline
Project Summary	Start-only	Baseline Milestone
Inactive Task	Finish-only	Baseline Summary
Inactive Milestone	External Tasks	Progress
Inactive Summary	External Milestone	Manual Progress

ID		Task Mo	WBS	Task Name	Work	Duration	Start	Finish	Predecesso	Successor	Risks	Opportun
20			4.1.2	Laboratory analyzes samples	0 hrs	160 hrs	Tue 7/21/15	Tue 8/18/15	19	21		
21			4.1.3	Receive Results	1 hr	1 hr	Tue 8/18/15	Tue 8/18/15	20	22	E2	13
22			4.1.4	Analyze Results	8 hrs	8 hrs	Tue 8/18/15	Wed 8/19/15	21	24	12	11
23			**4.2**	**Federal Research Report**	**20 hrs**	**36 hrs?**	**Wed 8/19/15**	**Wed 8/26/15**				
24			4.2.1	Draft Report	8 hrs	8 hrs?	Wed 8/19/15	Thu 8/20/15	22	25,28	12	11
25			4.2.2	Finalize Report	8 hrs	8 hrs?	Thu 8/20/15	Fri 8/21/15	24	26,29	12	11
26			4.2.3	Publish Report	4 hrs	4 hrs?	Tue 8/25/15	Wed 8/26/15	25	30	12	11
27			**4.3**	**State Research Report**	**20 hrs**	**24 hrs?**	**Fri 8/21/15**	**Wed 8/26/15**				
28			4.3.1	Draft Report	8 hrs	8 hrs?	Fri 8/21/15	Mon 8/24/15	24	29	12	11
29			4.3.2	Finalize Report	8 hrs	8 hrs?	Mon 8/24/15	Tue 8/25/15	25,28	30	12	11
30			4.3.3	Publish Report	4 hrs	4 hrs?	Wed 8/26/15	Wed 8/26/15	26,29	33	12	11
31			**5**	**Closeout**	**16 hrs**	**16 hrs?**	**Wed 8/26/15**	**Fri 8/28/15**				
33			5.2	Employee evaluations	8 hrs	8 hrs?	Wed 8/26/15	Thu 8/27/15	30	32	3	
32			5.1	Finalize contracts	8 hrs	8 hrs?	Thu 8/27/15	Fri 8/28/15	33	34,35	3	
34			5.3	~~Impact - Risk Study~~	61 hrs	~~61 hrs~~	Fri 8/28/15	Wed 9/9/15	32	35		
35			5.3	Project Complete	0 hrs	0 hrs	Fri 8/28/15	Fri 8/28/15	34,32		3	

Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

Task	Manual Task	Deadline
Split	Duration-only	Critical
Milestone	Manual Summary Rollup	Critical Split
Summary	Manual Summary	Baseline
Project Summary	Start-only	Baseline Milestone
Inactive Task	Finish-only	Baseline Summary
Inactive Milestone	External Tasks	Progress
Inactive Summary	External Milestone	Manual Progress

Cost	Resource Names
$8,040.00	
$0.00	
$16.00	
$2.00	Project manager
$4.00	Project manager
$2.00	Project manager
$2.00	Net gunner,Project manager
$6.00	Net gunner,Project manager
$0.00	
$5,957.00	
$32.00	Net gunner,Project manager
$1,692.00	Net gunner,Project manager,Co
$1,410.00	Net gunner,Project manager,Co
$1,410.00	Net gunner,Project manager,Co
$1,410.00	Net gunner,Project manager,Co
$0.00	
$3.00	Net gunner,Project manager
$2,051.00	
$2,011.00	
$2.00	Project manager



Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

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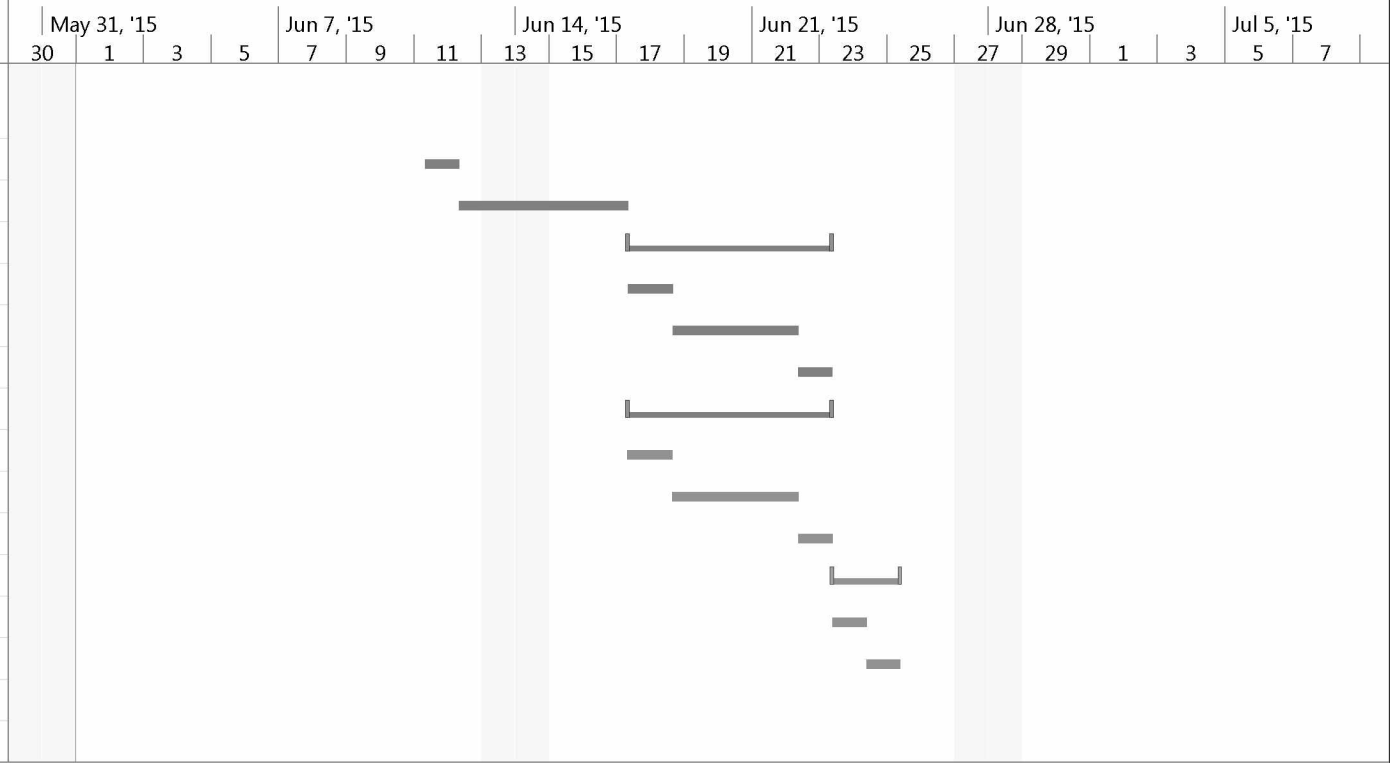
Split	Duration-only	Critical
Milestone	Manual Summary Rollup	Critical Split
Summary	Manual Summary	Baseline
Project Summary	Start-only	Baseline Milestone
Inactive Task	Finish-only	Baseline Summary
Inactive Milestone	External Tasks	Progress
Inactive Summary	External Milestone	Manual Progress

Cost	Resource Names
$2,000.00	Laboratory[1]
$1.00	Project manager
$8.00	Project manager
$20.00	
$8.00	Project manager
$8.00	Project manager
$4.00	Project manager
$20.00	
$8.00	Project manager
$8.00	Project manager
$4.00	Project manager
$16.00	
$8.00	Project manager
$8.00	Project manager
$11,345.00	~~Capture assistant~~
$0.00	



Project: Dall's Sheep Herd Heal
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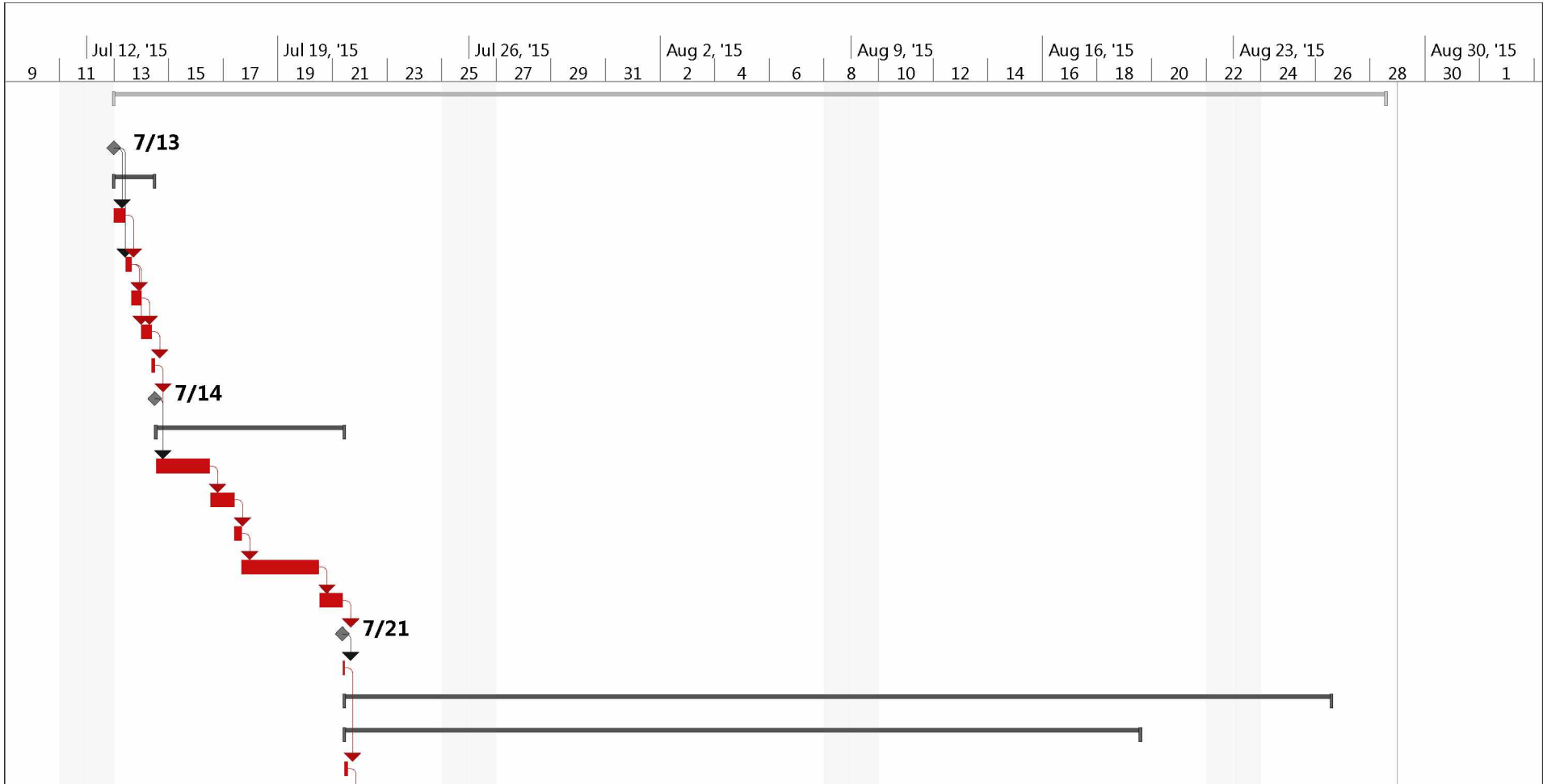

Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

Task	Manual Task	Deadline
Split	Duration-only	Critical
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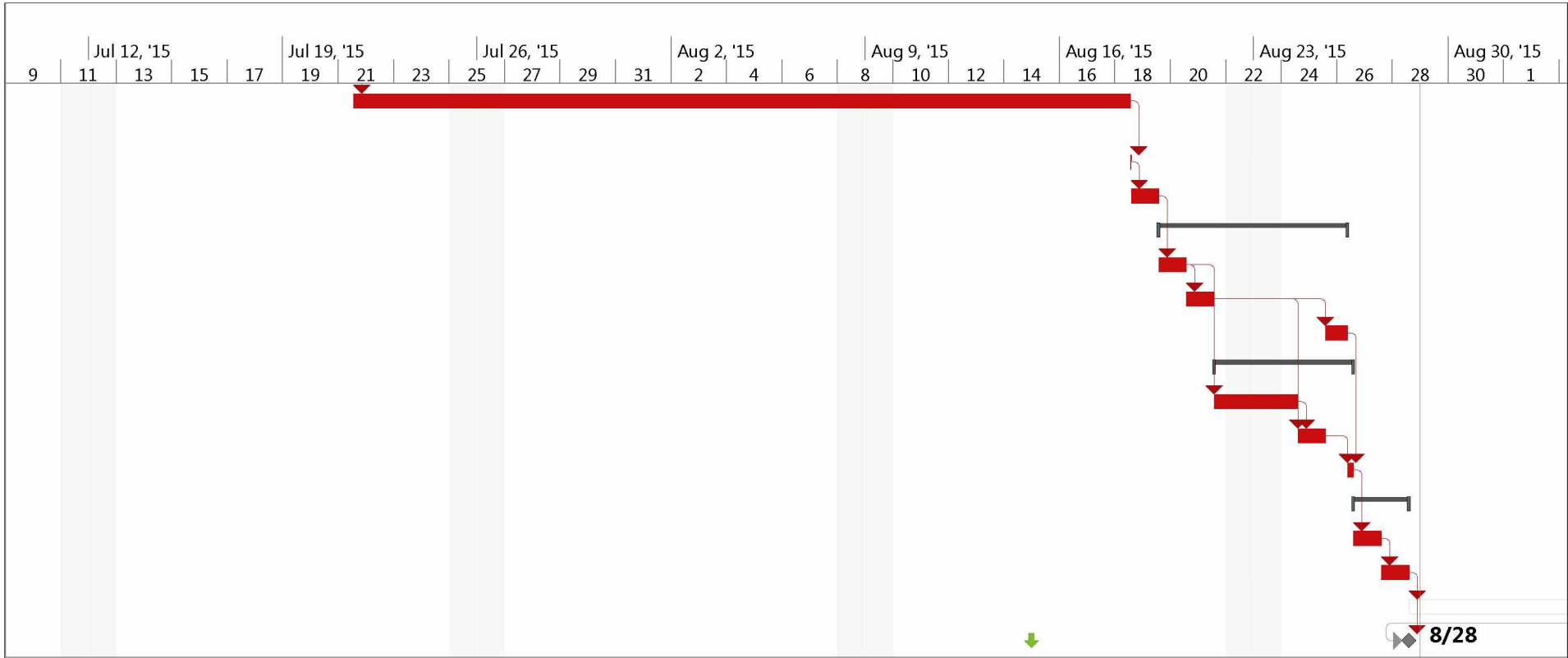

Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

Task	Manual Task	Deadline
Split	Duration-only	Critical
Milestone	Manual Summary Rollup	Critical Split
Summary	Manual Summary	Baseline
Project Summary	Start-only	Baseline Milestone
Inactive Task	Finish-only	Baseline Summary
Inactive Milestone	External Tasks	Progress
Inactive Summary	External Milestone	Manual Progress

Risk Register

ID#	Risk Name	Description of Risk	Likelihood 1-5	Impact 1-5	Risk Level Low 1-8 Med 8-14 High 14-25	Response Type	Likelihood 1-5	Impact 1-5	Risk Level	Quantitative	Work Package	Owner
Internal Risks/Opportunities												
1	Sponsor Commitment	Sponsor does not understands significance of position in project and requirements	3	4	MED	Mitigate - Through communication no less than biweekly reviewing completed work and ensuring it meets scope	2	4	MED	-	0	PM
2	Scope creep	Work is completed out of scope and time is lost resulting in project failure	3	3	LOW	Mitigate - By reviewing scope with stakeholders and updating as necessary using the change control process	2	3	LOW	Rate of employees and aircraft by hours lost	2,3	PM
3	Inaccurate work estimates	Due to PM inexperience and lack of previous project best practices, the work estimates are inaccurate	3	2	LOW	Mitigate - By reviewing schedule/WBS and confirming work that is being completed is on schedule	2	2	LOW	AW is higher than PW	1	PM
5	Field research not completed	Due to weather or scheduling conflicts field research is not completed resulting in lost subject matter expertise that would be incorporated in project	3	2	LOW	Accept - Due to work schedule resulting in only one field session being available, If weather results in field research not completed the risk will have to be accepted	-	-	LOW	50K	2.2,2.3,2.4,2.5	PM
6	Work completed that is not on schedule	Due to PM inexperience not all work required was documented	4	1	LOW	Accept - Due to work being completed that is not on schedule accept risk and document on schedule	-	-	LOW	AW is higher than PW	2.2,2.3,2.4,2.5	PM
7	Employee Injury	Employee is injured during capture work	2	5	MED	Use trained employees	2	5	MED	Increased cost	2.2,2.3,2.4,2.5	PM
8	Materials Not Available	Materials are delayed or not available	1	5	LOW	Use state required companies and order materials 60 days out	-	-	LOW	Increased cost	1.2, 1.3	PM
9	Sheep are not captured at predicted Speed	Sheep are not captured at predicted rate	3	4	MED	Plan 2 different capture periods for weather, ensure chartered aircraft have backup a/c	1	4	LOW	Rate of employees and aircraft by hours lost	2.2,2.3,2.4,2.5	PM
10	Sheep are captured quicker than predicted	Sheep are captured at quicker rate	1	3	LOW	Ensure air contract has clause for early completion,	1	3	LOW	Rate of employees and aircraft by hours gained	2.2,2.3,2.4,2.5	PM
External Risks/Opportunities												
1	Research Samples Lost	samples are not received after shipping	2	5	MED	Ship through UPS Next day air with insurance	1	5	LOW	50K	3.1.1,	PM
2	Samples are degraded	Shipping container does not maintain required temperature resulting in lost/degraded samples	2	5	MED	Ship through UPS Next day air with insurance	1	5	LOW	50K	3.1.2	PM
3												
4												
5												
6												
7												
8												
9												
10												

Requirements Traceal				
Req #	Description	Source	Stakeholder Register Reference	Requirement Classification
1	References current best practice capture processes and guidelines	Project Sponsor	Project Sponsor	Functional
2	References WAFWA Bighorn Sheep Herd Health Monitoring Recommendations	Project Sponsor	Project Sponsor	Functional
3	Simple and succinct document	Project Sponsor	Project Sponsor	Functional
4	Hard copy furnished in binder along and cd including final document in adobe and modifiable format (word, excel, project)	Project Sponsor	Project Sponsor	Functional
13	PPM1B (PM686B)	PM686B Syllabus	Committee	Course
14	PPM2B (PM686B)	PM686B Syllabus	Committee	Course
15	PPM3B (PM686B)	PM686B Syllabus	Committee	Course
16	PPM4B (PM686B)	PM686B Syllabus	Committee	Course
17	Final Research Paper (PM686B)	PM686B Syllabus	Committee	Course
18	Summary lessons learned narrative (PM686B)	PM686B Syllabus	Committee	College
19	Knowledge area narrative (PM686B)	PM686B Syllabus	Committee	College
20	Final presentation slides (PM686B)	PM686B Syllabus	Committee	College
21	PM 686A Final Course Deliverables Submission	PM 686A Final Course Deliverables Submission	Committee	College

bility Matrix

Project Objective Reference	Priority (Low Med High)	Acceptance Criteria	Validation method	Owner	WBS Work Package Reference
Develop PMP	Med	Referennced in PMP	Sponsor Review	PM	4.1.2, 4.2.6
Develop PMP	Med	Referennced in PMP	Sponsor Review	PM	4.1.2, 4.2.6
Develop PMP	High	Upon review	Sponsor Review	PM	4.1.2, 4.2.6
Develop PMP	High	Upon review	Sponsor Review	PM	4.6.1
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.1
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.2
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.3
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.4
Complete PM686B	High	Complete, timely	Committee Review	PM	4.4.2, 4.6
Complete PM686B	High	Complete, timely	Committee Review	PM	4.6.5
Complete PM686B	High	Complete, timely	Committee Review	PM	4.1.6, 4.2.9, 4.3.6, 4.4.4, 4.6.4
Complete PM686B	High	Complete, timely	Committee Review	PM	4.4.14.5.1,4.5.2
Complete PM686A	High	Requirement followed	Committee Review	PM	4.6

Stakeholder Register		PM Methodology applied to Dall's Sheep		
	Identification Information			
Internal Stakeholders	Organization	Position/Title	Location	Role
Vance Johnson	UAA	Student	Alaska	Project Manager
Roger Hull	UAA	Professor	Alaska	Committee Advisor
LuAnn Piccard	UAA	Professor	Alaska	Committee Member
Seong Dae Kim	UAA	Professor	Alaska	Committee Member
External Stakeholders				
Tom Lohuis	ADFG	Wildlife Biologist	Alaska	Project Sponsor
Area Biologists	ADFG	N/A	Alaska	Provide requirements
Alaska Board of Game	ADFG	N/A	Alaska	N/A
Wildlife Health Committee	Western Association of Fish and Wildlife Agencies	N/A	NW U.S.	N/A
Consumptive users	None	N/A	Alaska	N/A
Non -consumptive users	None	N/A	Alaska	N/A

› Herd Health Assessments

	Assessment Information (Their project requirements and expectations)				
Contact Information	Major requirements (See RTM)	Measures of Success	Expectations	Primary Concerns	Other helpful info
	None			Meet Course and stakeholder requirements	Full time employment and student
	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	0-100% grade scale	Exceed course requirements and excell in studies		
	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,21	0-100% grade scale	Exceed course requirements and excell in studies		
	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,22	0-100% grade scale	Exceed course requirements and excell in studies		
	1,2,3,4	PMP is useful	Provide executable plan	Non-biology major efficiveness in research development	
	1,2,3,4				
N/A	None	None	None	None	None
N/A	None	None	None	None	None
N/A	None	None	None	None	None
N/A	None	None	None	None	None

Classification (Their relationship to and ability to impact project)				Communication (How they like to		
Current Level of Support	Desired level of support	Key influencers / relationships	Other helpful info	Mode	Frequency	Level of detail
High	High	Fiance'	Full time employment and student	Face to Face, Phone, Email, Blackboard	Any time	Dependent on stakeholder
Med	Med			Face to Face, Phone, Email, Blackboard	Minimum bi-weekly	Thorough
Med	Med			Face to Face, Phone, Email, Blackboard	Minimum bi-weekly	Thorough
Med	Med			Face to Face, Phone, Email, Blackboard	Minimum bi-weekly	Thorough
High	High			Face to Face, Phone, Email	Minimum bi-weekly	Moderate
Low	Low			Interview	When required	Minimum
None	None		Pass regulation	Through ADFG		
None	None			N/A	N/A	N/A
None	None			Through ADFG	Per ADFG	Minimum
None	None			Through ADFG	Per ADFG	Minimum

be communicated with)	
Format	Other helpful info
Any	
Phone, face to face, email	Set up meeting dependent on help required
Phone or face to face meeting	One day prior send meeting topics
Email	Include PPM progress, comments, issues, help required
Phone, face to face, email	Does not require updates, contact any time help is required
Phone, face to face, email	
ADFG internal reports or statements	
N/A	Non standing board, can not contact
Announcements	Unorganized group, can not single out
Announcements	Unorganized group, can not single out

Project Management Methodology applied to
Dall's Sheep Herd Health Assessments

Jeffrey Vance Johnson
7 September 2015

Appendix F (Supplies)

Introduction

The list provided documents the recommended supplies for use during the project. Note that during each season it is the Project Managers responsibility to source the supplies.

Handling Pack

- Handling Pack
- Blindfolds
- Hobbles
- Cam straps as hobble backups
- 80' of 6mm rope for handling
- Radio collars
- Nalgene for sharps
- Collar nut drivers
- Shears
- Calipers
- Hole punch
- Carabineers
- Weigh net
- Avalanche shovel for weight pole
- Scale
- Hand Wipes
- Sanitizer
- Shotgun shells
- Tupperware w/ nolvasan
- 9v and AA batteries for ANR units
- 1 gal Ziplocs for trash
- Data forms

Handling Kit

- Vacutainer needles
- Vacutainer holders
- Vacutainer tubes
- Needles, 18, 20, & 21 gauge
- Thermometers (6 ea)
- Measuring tapes (3 ea)
- Collar hardware
- Hand sanitizer
- Ophthalmic ointment
- Antibiotic ointment
- Sharpie markers (4 ea)
- Pencils (8 ea)
- 3 cc syringes
- 5 cc syringes
- Gloves
- Jaw spreaders
- PVC Frick speculum

Handling Extras

Syringes; 60, 20, 10, 5, 3 & 1
Needles, 18, 20, & 21 gauge
Vacutainer holders
Vacutainer needles
Vacutainers; purple (EDTA/whole blood
Vacutainers; tiger (SST)
Vacutainers; Blue (Trace mineral)
Clorox wipes
Latex gloves

Netgun

Netgun
Canisters
Nets
308 blanks

Shipping

Accession forms
Prepaid shipping labels
Plastic envelopes
Packaging tape
Fish boxes
Ice packs
1 gal Ziplocs
1qt Ziplocs
Swabs
Port-a-culs
Mycoplasma broth
Blue tarps
Contractor trash bags
Compactor trash bags

Spare Bag for Helicopter

Large stuff sack
1 gal Ziploc w/ needles, 18, 20, & 21 gauge
1 gal Ziploc w/ 1, 3, 5 & 10 cc syringes
Latex gloves
Sterile saline
Tolazoline
1 gallon Ziplocs
Extra handling kit (2 ea)
Data forms
Pencils
Maps of study area

Drug Module

LA-200
BO-SE
Sterile saline
Tolazoline
Atipamezole
Dopram
Xylazine

Necropsy Kit

Blade handles; #3, #4 & #8
Blades; #10, #20 & #60
Scissors
Lab markers
Whirl packs for samples

Blood Collection

Centrifuge
Cryovials/animal (10 ea)
Transfer pipettes
Glass transfer pipettes
Bulbs
Test tube racks
Cryovial racks

Safety

First aid kit
Flight vest
12 Gauge shotgun
Slugs
Buck
Gun cleaning kit
Batteries; AA, AAA & 9V
Orange tarp/space blanket
Strobe
Flares
Laser flare
Hexamine
Lighters
Flagging tape
Parachute cord
Saw
Compass
EPLB
Space blanket bag
Mittens

Balaclava
Nomex fleece
Helmet
Adapters
Flight gloves
Avalanche beacons (3 ea)
Avalanche shovels (3 ea)
Ear plugs
ATS receiver/scanner
ICom handheld, charger & battery pack
CSI handheld telemetry receiver & charger
Telonics rubber ducky & coax cables
Electrical tape
Duct tape
Paper towels
Toilet paper
Large sharps container
Nalgene bottles for sharps container
Whirl packs
Collar hardware

ID	Task Mo	WBS	Task Name	Work	Duration	Start	Finish	Predecesso	Successor	Risks	Opportun
0		0	**Dall's Sheep Herd Health Assessment**	**202 hrs**	**277.5 hrs?**	**Mon 7/13/15**	**Fri 8/28/15**				
1		1	Start Project	0 hrs	0 hrs	Mon 7/13/15	Mon 7/13/15		3,4	3	
2		**2**	**Planning**	**16 hrs**	**12 hrs**	**Mon 7/13/15**	**Tue 7/14/15**				
3		2.1	Assign/coordinate Resources	2 hrs	2 hrs	Mon 7/13/15	Mon 7/13/15	1	4	2	
4		2.2	Order Materials	4 hrs	4 hrs	Mon 7/13/15	Mon 7/13/15	1,3	6,5	8	15
5		2.3	Receive Materials	2 hrs	2 hrs	Mon 7/13/15	Mon 7/13/15	4	6	8	15
6		2.4	Pack for trip	2 hrs	1 hr	Tue 7/14/15	Tue 7/14/15	4,5	8	2,5	15
8		2.6	Conduct Layout	6 hrs	3 hrs	Tue 7/14/15	Tue 7/14/15	6	10,7	2	
7		2.5	Trip Preparation Complete	0 hrs	0 hrs	Tue 7/14/15	Tue 7/14/15	8	10	2,5,9,10	
9		**3**	**Execution**	**119 hrs**	**38.5 hrs?**	**Tue 7/14/15**	**Tue 7/21/15**				
10		3.1	Travel to research location	32 hrs	16 hrs?	Tue 7/14/15	Thu 7/16/15	8,7	11	E3	E4
11		3.2	Research Day 1	24 hrs	6 hrs?	Thu 7/16/15	Fri 7/17/15	10	12	2,7,9	10
12		3.3	Research Day 2	20 hrs	5 hrs?	Fri 7/17/15	Fri 7/17/15	11	13	2,7,9	10
13		3.4	Research Day 3	20 hrs	5 hrs?	Fri 7/17/15	Mon 7/20/15	12	14	2,7,9	10
14		3.5	Research Day 4	20 hrs	5 hrs?	Mon 7/20/15	Tue 7/21/15	13	15	2,7,9	10
15		3.6	Research Complete	0 hrs	0 hrs	Tue 7/21/15	Tue 7/21/15	14	16	2,7,9	10
16		3.7	Travel to home	3 hrs	0.19 days?	Tue 7/21/15	Tue 7/21/15	15	19	E3	E4
17		**4**	**Research**	**51 hrs**	**211 hrs?**	**Tue 7/21/15**	**Wed 8/26/15**				
18		**4.1**	**Samples**	**11 hrs**	**171 hrs?**	**Tue 7/21/15**	**Wed 8/19/15**				
19		4.1.1	Ship Samples	2 hrs	2 hrs?	Tue 7/21/15	Tue 7/21/15	16	20	E1, E2	13

Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

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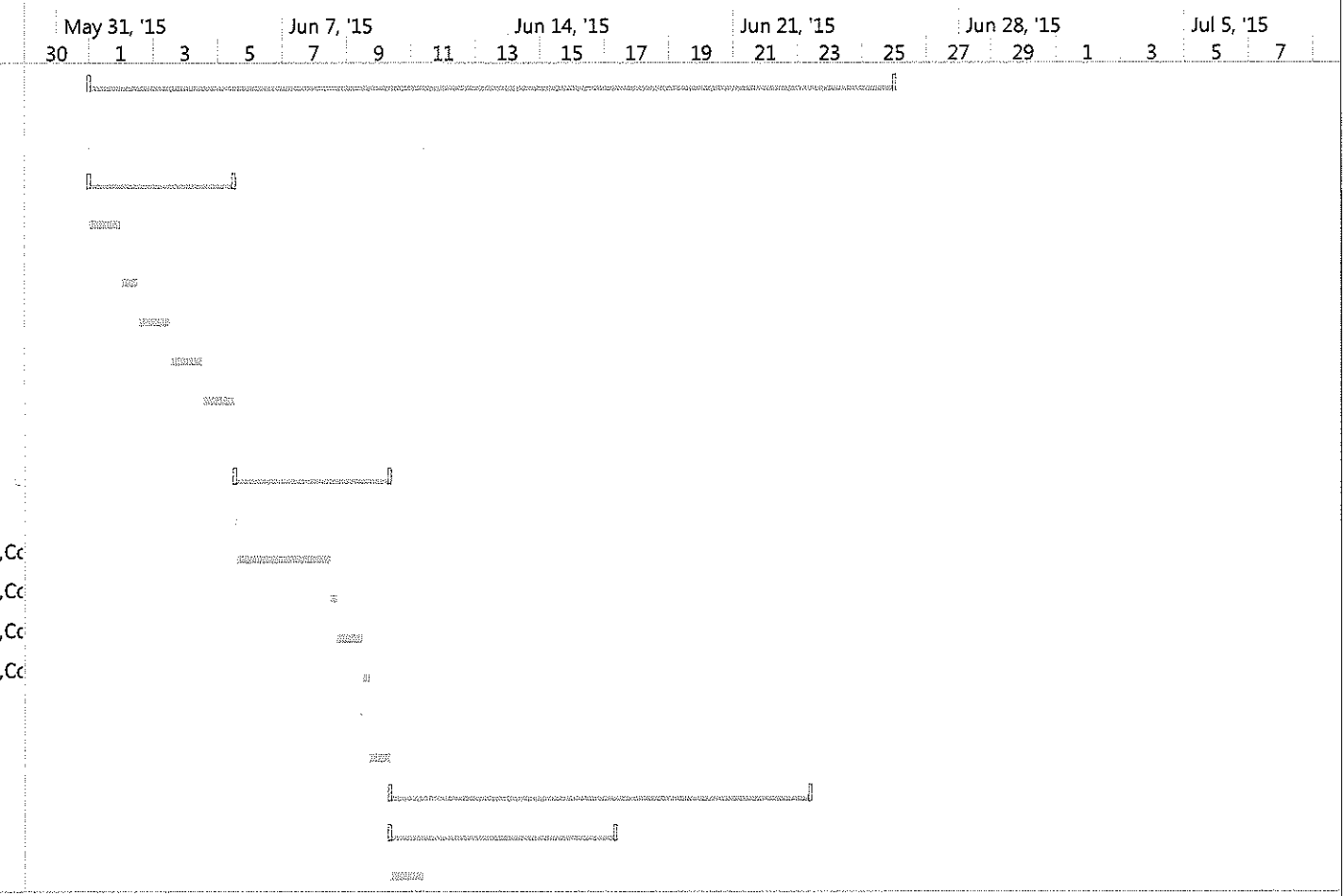
Inactive Summary	External Milestone	Manual Progress	

ID	Task Mode	WBS	Task Name	Work	Duration	Start	Finish	Predecessors	Successors	Risks	Opportun
20		4.1.2	Laboratory analyzes samples	0 hrs	160 hrs	Tue 7/21/15	Tue 8/18/15	19	21		
21		4.1.3	Receive Results	1 hr	1 hr	Tue 8/18/15	Tue 8/18/15	20	22	E2	13
22		4.1.4	Analyze Results	8 hrs	8 hrs	Tue 8/18/15	Wed 8/19/15	21	24	12	11
23		**4.2**	**Federal Research Report**	**20 hrs**	**36 hrs?**	**Wed 8/19/15**	**Wed 8/26/15**				
24		4.2.1	Draft Report	8 hrs	8 hrs?	Wed 8/19/15	Thu 8/20/15	22	25,28	12	11
25		4.2.2	Finalize Report	8 hrs	8 hrs?	Thu 8/20/15	Fri 8/21/15	24	26,29	12	11
26		4.2.3	Publish Report	4 hrs	4 hrs?	Tue 8/25/15	Wed 8/26/15	25	30	12	11
27		**4.3**	**State Research Report**	**20 hrs**	**24 hrs?**	**Fri 8/21/15**	**Wed 8/26/15**				
28		4.3.1	Draft Report	8 hrs	8 hrs?	Fri 8/21/15	Mon 8/24/15	24	29	12	11
29		4.3.2	Finalize Report	8 hrs	8 hrs?	Mon 8/24/15	Tue 8/25/15	25,28	30	12	11
30		4.3.3	Publish Report	4 hrs	4 hrs?	Wed 8/26/15	Wed 8/26/15	26,29	33	12	11
31		**5**	**Closeout**	**16 hrs**	**16 hrs?**	**Wed 8/26/15**	**Fri 8/28/15**				
33		5.2	Employee evaluations	8 hrs	8 hrs?	Wed 8/26/15	Thu 8/27/15	30	32	3	
32		5.1	Finalize contracts	8 hrs	8 hrs?	Thu 8/27/15	Fri 8/28/15	33	34,35	3	
34											
35		5.3	Project Complete	0 hrs	0 hrs	Fri 8/28/15	Fri 8/28/15	34,32		3	

Project: Dall's Sheep Herd Heal
Date: Tue 9/8/15

Task		Manual Task		Deadline	
Split		Duration-only		Critical	
Milestone		Manual Summary Rollup		Critical Split	
Summary		Manual Summary		Baseline	
Project Summary		Start-only		Baseline Milestone	
Inactive Task		Finish-only		Baseline Summary	
Inactive Milestone		External Tasks		Progress	
Inactive Summary		External Milestone		Manual Progress	

Cost	Resource Names
$8,040.00	
$0.00	
$16.00	
$2.00	Project manager
$4.00	Project manager
$2.00	Project manager
$2.00	Net gunner,Project manager
$6.00	Net gunner,Project manager
$0.00	
$5,957.00	
$32.00	Net gunner,Project manager
$1,692.00	Net gunner,Project manager,Cc
$1,410.00	Net gunner,Project manager,Cc
$1,410.00	Net gunner,Project manager,Cc
$1,410.00	Net gunner,Project manager,Cc
$0.00	
$3.00	Net gunner,Project manager
$2,051.00	
$2,011.00	
$2.00	Project manager



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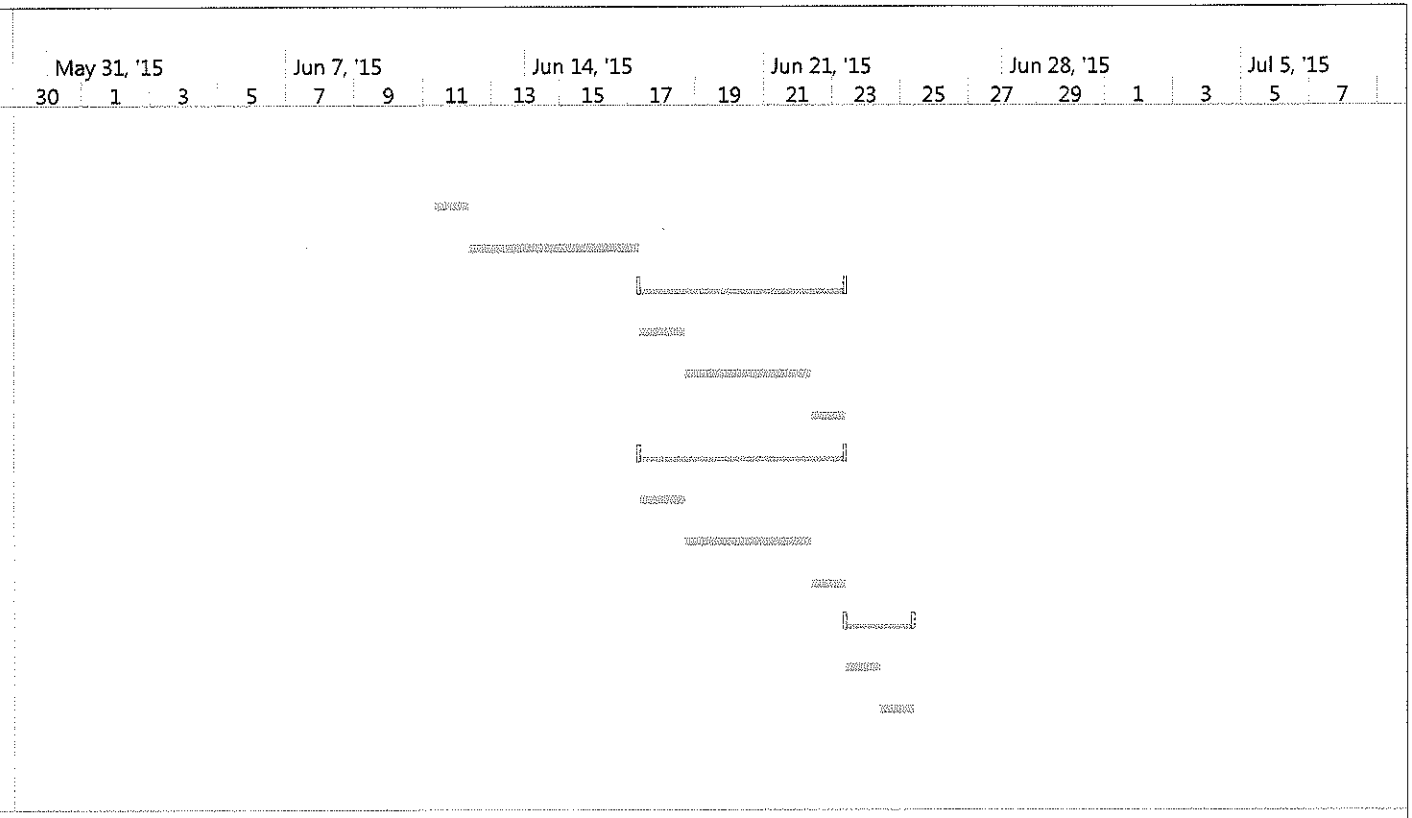
Inactive Task		Finish-only		Baseline Summary	
Inactive Milestone		External Tasks		Progress	
Inactive Summary		External Milestone		Manual Progress	

Cost	Resource Names
$2,000.00	Laboratory[1]
$1.00	Project manager
$8.00	Project manager
$20.00	
$8.00	Project manager
$8.00	Project manager
$4.00	Project manager
$20.00	
$8.00	Project manager
$8.00	Project manager
$4.00	Project manager
$16.00	
$8.00	Project manager
$8.00	Project manager
$0.00	



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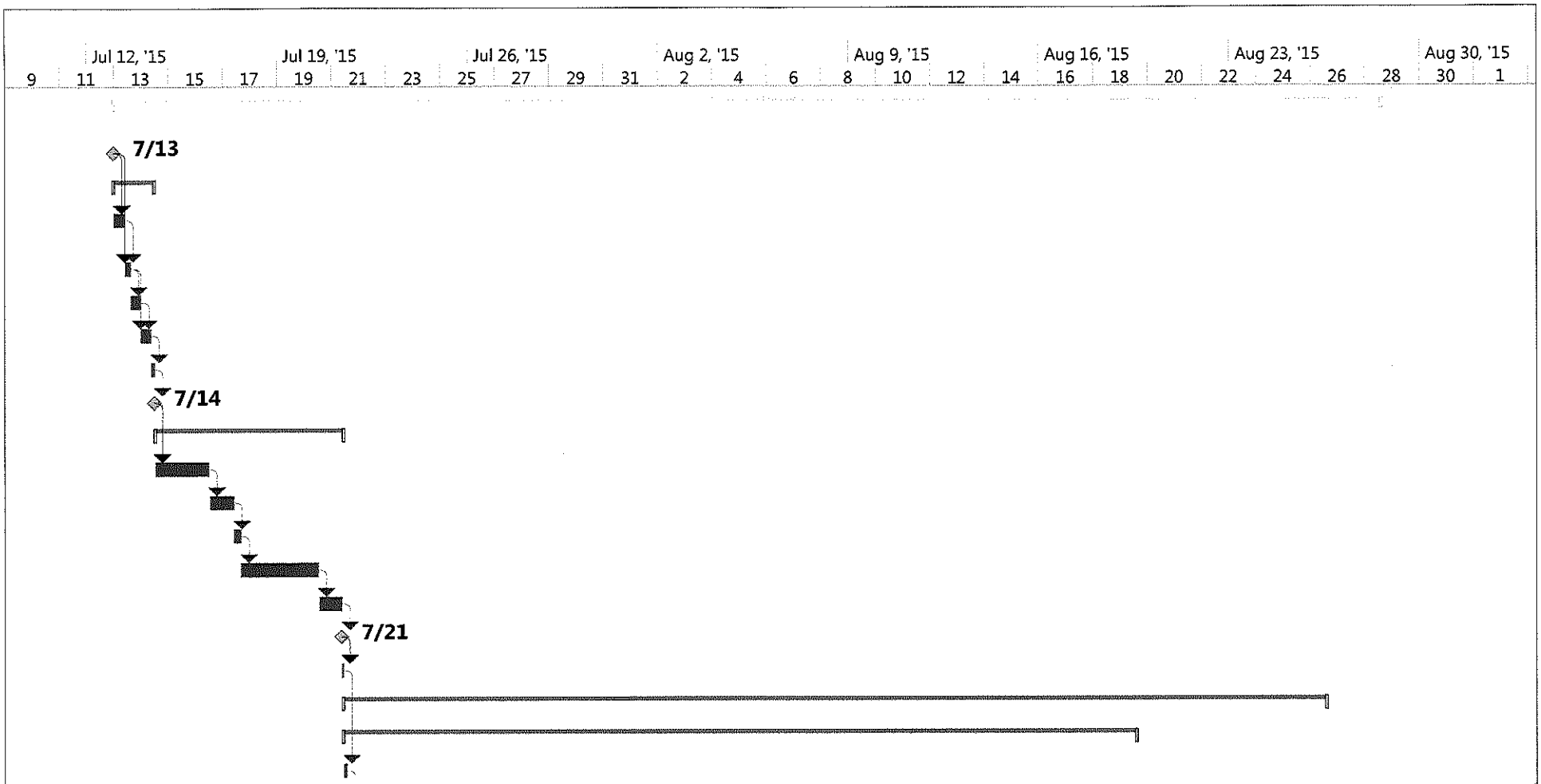

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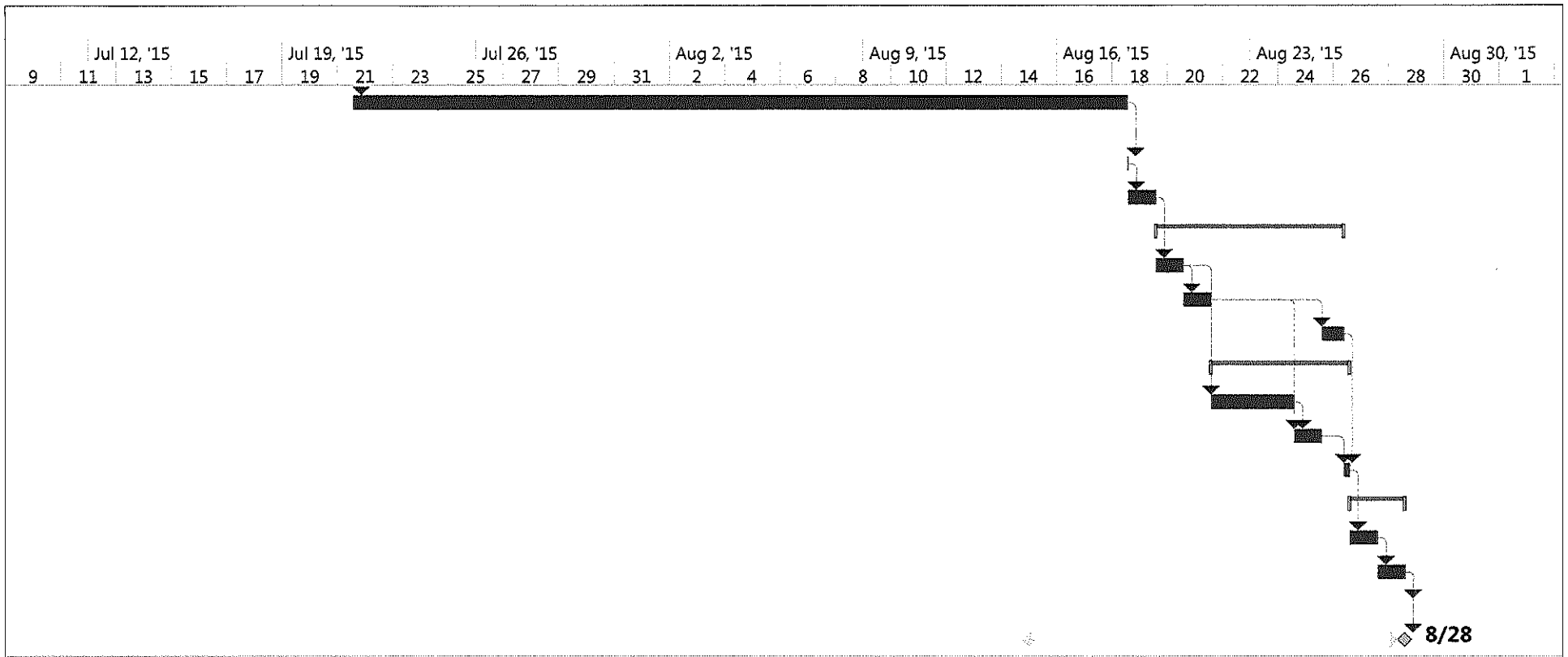

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Split	Duration-only	Critical
Milestone	Manual Summary Rollup	Critical Split
Summary	Manual Summary	Baseline
Project Summary	Start-only	Baseline Milestone
Inactive Task	Finish-only	Baseline Summary
Inactive Milestone	External Tasks	Progress
Inactive Summary	External Milestone	Manual Progress

PROJECT MANAGEMENT METHODOLOGIES APPLIED TO DALL'S SHEEP HERD HEALTH ASSESSMENTS

Jeffrey Vance Johnson
PM 686B Fall 2015
Project Brief

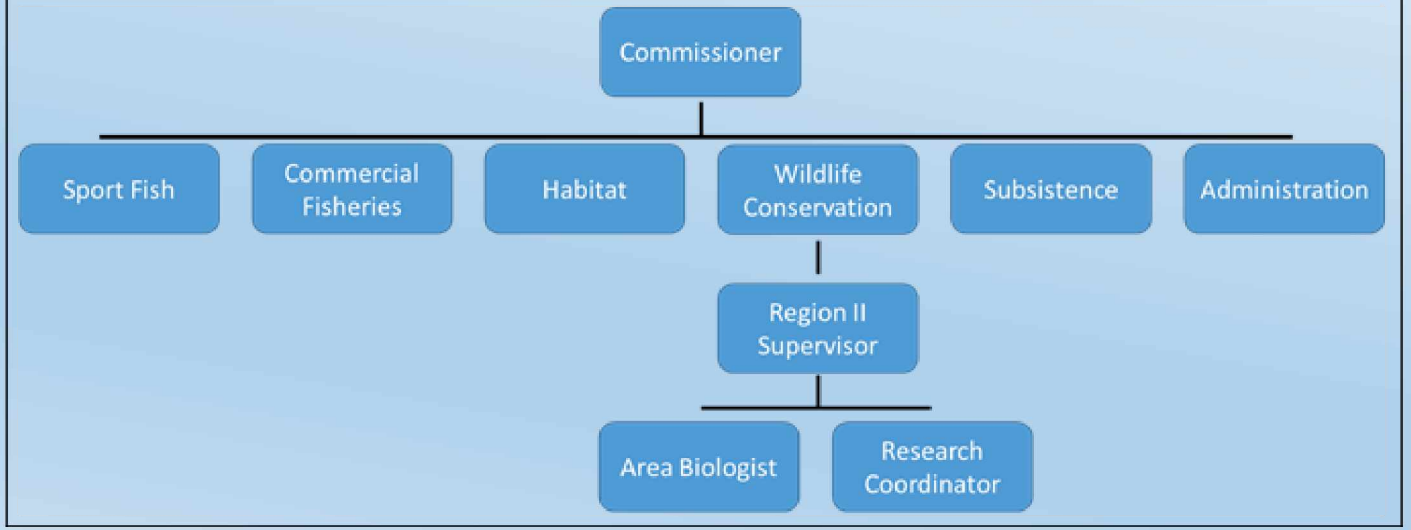
AGENDA

- Introduction
- Project Background
- Project Approach
- Research Methodology
- Conclusions and Recommendations
- Opportunities

ALASKA DEPARTMENT OF FISH AND GAME

- Tasked by the Governor of Alaska to protect, maintain, and improve the fish, game, and aquatic plant resources of the state
- Manage approximately 750 active fisheries, 26 game management units, and 32 special areas
- Vital to their mission and goals are to make policy and management decisions

Figure 1: Alaska Department of Fish and Game Organizational Structure



PROJECT BACKGROUND

- In order to make policy and management decisions countless research projects are conducted annually
- Project management methodologies not applied to current plans
- Without the use of project management or a regular process, their projects are potentially not as successful as they could be if they were applied
- Completed an execution plan that allows for effective data collection and documentation

CHARTER

- Approved 30 Jan 15
- Authorizes PM to produce execution plan for ADFG
- Zero budget
- One non paid resource allocated
- Deadline for product is 30 Dec 2015

SCOPE

- Provide a complete execution plan for ADFG to implement their Dall's Sheep Herd Health Assessment Project
- Utilizing project management methodology create an execution plan
- Background research authorized to write the plan
- The execution plan will provide one seasons worth of operations
- There are no funds allocated to the project
- The final deliverable is the execution plan furnished in a printed and electronic form

Official start - first topic research session

Official end - closeout with UAA

DALL SHEEP HERD HEALTH ASSESSMENT OVERVIEW

- Conduct a study to systematically screen for infectious disease
- Multi year project (4-7 years) with annual budget of $50k
- First season location is Chugach Range
- Four day capture period will occur between 01 March and 10 April
- Capture 30-40 Dall's sheep for blood draw and swabbing samples
- Samples analyzed at a state external lab
- Findings to be documented in a Federal Aid Performance Report and ADFG internal final report

PROJECT OBJECTIVES AND DELIVERABLES

Objectives

- Develop an execution plan for ADFG to execute their project when required or to be used as a basis to build future plans
- Conduct research in order to write such a plan
- Complete PM686A andPM686B with an A (<90%)

Deliverables

- A complete and thorough execution plan including all required internal plans in printed and electronic form
- Completion of PM686A and PM686B including all deliverables required for course completion

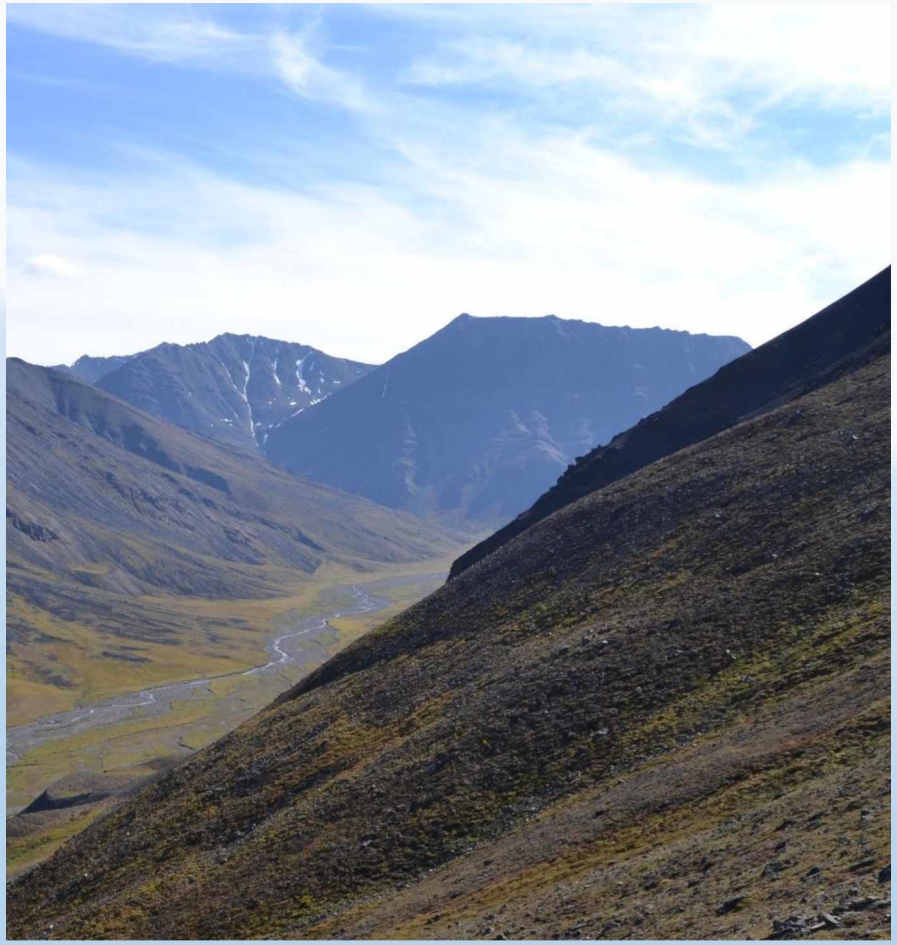
REQUIREMENTS

Execution Plan

- Current best practice capture processes and guidelines
- Current WAFWA Bighorn Sheep Herd Health Monitoring Recommendations
- Simple, succinct, executable and modifiable document as determined by ADFG
- Hard copy furnished in binder along and cd including final document in adobe and electronic modifiable format

Course Completion

- All PM686A & 686B Syllabi



EXCLUSIONS AND ASSUMPTIONS

Exclusions

- Implementation and execution of execution plan
- Project research recommendations for best practices outside of project management
- Any contracts that are required will not be written or included in the plan
- Procuring supplies
- Determine specific human resources for execution (IE: Names)

Assumptions

- ADFG will provide accessibility to information required to conduct research and write the plan
- ADFG will accept completed plan

PROJECT SUMMARY

Schedule

- 318 days
- Start - 16 January
- End - 08 December
- SPI – 1.05
- EPI – 1.23
- 96 % Complete

Constraints

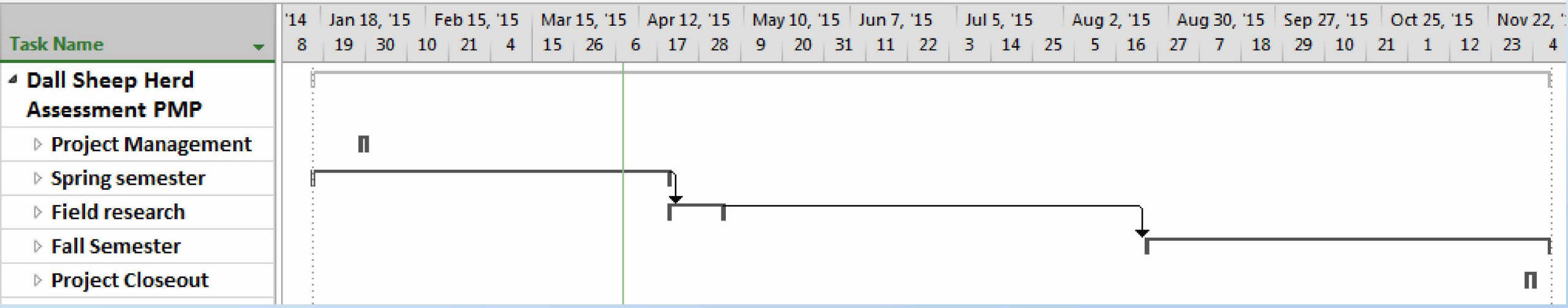
	Time	Scope	Quality
Constrain	X		
Enhance		X	
Accept			X

Resource

Resource Name	Type	Initials	Max. Units	Std. Rate	Ovt. Rate	Accrue At	Base Calendar
Project Manager	Work	PM	100%	$1.00/hr	$1.00/hr	Prorated	Standard

SCHEDULE

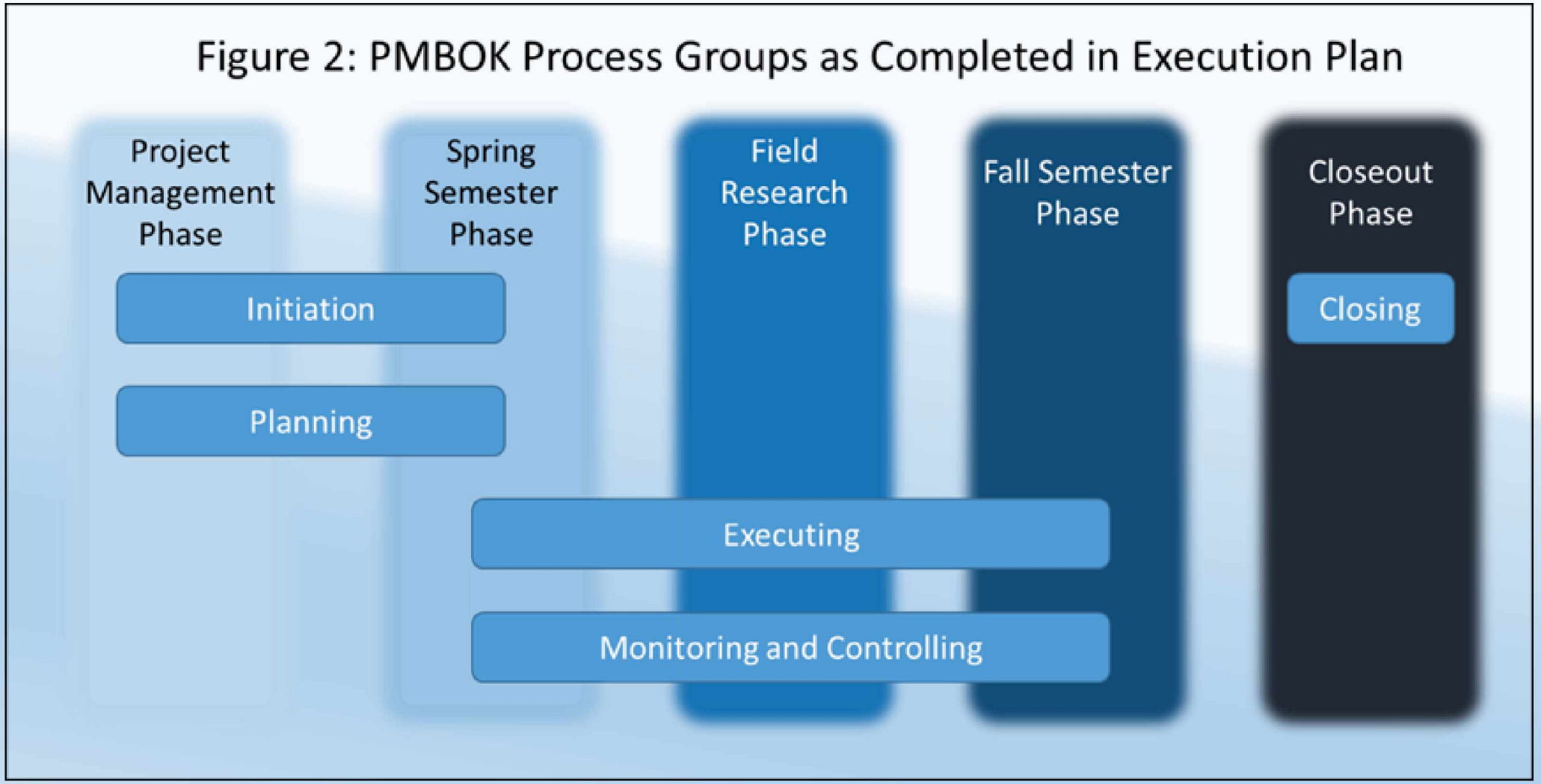
Task Mode	WBS	Task Name	Duration	Work	Start	Finish
	0	**Dall Sheep Herd Assessment PMP**	**1873 hrs**	**318 hrs**	**Fri 1/16/15**	**Tue 12/8/15**
✓	1	Project Management	15 hrs	13.23 hrs	Wed 1/28/15	Fri 1/30/15
✓	2	Spring semester	545 hrs	148.68 hrs	Fri 1/16/15	Mon 4/20/15
✓	3	Field research	483 hrs	10 hrs	Sat 6/13/15	Mon 9/7/15
	4	Fall Semester	572 hrs	138.07 hrs	Fri 8/28/15	Tue 12/8/15
	5	Project Closeout	121 hrs	8 hrs	Mon 11/16/15	Mon 12/7/15



PURPOSE

- **Is to execute the project in which it is written in its entirety**
  - The PM will review the plan and complete the required actions to implement the project
  - Actions include allocating manpower, ordering required supplies, and executing the plan
  - The anticipated benefits to the project manager is to minimize the time required to write such a plan and to have the opportunity to execute a project with a thorough plan
- **Use this execution plan as a template for constructing future plans**
  - Familiarize the PM with a thorough plan, establishing a standard
  - Is intended to be modified and applicable sections applied to future projects.
  - Standardized document that reduces time required in the planning phase of future projects
- **Is to complete one plan documenting ADFG's Dall's Sheep sampling best practices**
  - Assist the PM's by having a document to refer to or execute from, when conducting such work

PROJECT APPROACH



INITIATION

- Began 16 January 2015 with the initial topic research in the project management phase
- The original charter established the work to be completed
- Stakeholder meeting discussed the project scope thoroughness, during that meeting, the stakeholders were able to negotiate scope and ensure everyone understood all of the work and only the work
- Developing scope was difficult as project sponsor and project manager have different educational backgrounds and professions
- Due to open communication, the project sponsor understood the extent to which the project would be planned and that the wildlife biology research would be excluded
- Initiation was completed 30 January 2015

INITIATION
LESSONS LEARNED

- Scope Management – Control scope size
- Open Communication – Allows stakeholders to understand scope
- Face to Face Meetings – Allows for clarification

PLANNING

- Initiated 16 January in the spring semester phase
- The signed project charter was used to begin developing the PMP
- The PMP is supported by the following sub management plans; Scope Management Plan, Requirements Management Plan, Schedule Management Plan, Resource Management Plan, Quality Management Plan, Communications Management Plan, Risk Management Plan and Closeout Management Plan
- A Cost Management Plan was not completed because no funding was expended or available for this project
- Several appendices; work breakdown structure, master schedule, risk register, requirements traceability matrix and stakeholder register
- Planning phase was completed 20 April 2015

PLANNING
LESSONS LEARNED

- Scheduling of work had several challenges
  - Schedule was built with float throughout to remain flexible
  - PM had several weeks within the project schedule that no work could occur
- Ensuring that the gaps in availability did not delay any deliverable completion or submission
  - When known, work was completed ahead of schedule
- Forecasted effects of risks occurring not given enough thought
  - Spend time forecasting effects of risks
  - Planning for a risk to occur and its effect speeds up response

EXECUTION

- The execution process group began 18 March 2015 occurring in the spring semester, field research and fall semester project phases
- Project execution occurred concurrently with planning during the spring semester phase
  - Due to the short timeline that this schedule was to be completed within.
  - The project sponsors schedule also required the completion of certain documents early during the planning phase for use during another real world project
- Predetermined risk occurred that the due to scheduling requirements, the project sponsor would potentially be unable to include the project manager on the field research
  - Initially the field research phase included five days of capture work
  - This capture work was initially planned to be used as the primary method of research for the execution plan
  - Scope of the field research was reduced to literary review

EXECUTION LESSONS LEARNED

- Key to success is stakeholder management
  - The success of this project lies with the project sponsor accepting the execution plan
  - Regular sponsor meetings occurred ensuring portions of the execution plan will be reviewed
  - Allowed for recommendations minimizing the risk of the project sponsor not accepting the document
- The literary research and research report was a significant portion of the project hours
  - The research report required 24 hours of work but was estimated at 15 hours
  - After receiving all of the documents to be reviewed by the project sponsor, they were reviewed several times for the literary research
  - This is the one task that was grossly underestimated
  - Work was initiated on this task and the project sponsor was trying to report work on the task when it was realized it was not even scheduled
- The work estimating process of this project was regularly overestimated
  - The estimating process used for was subject matter expert estimation
  - Majority of the work packages were overestimated, effecting the KPI's
  - Re-baseline the project with the actual work hours completed if used as template

MONITORING AND CONTROLLING

- Monitoring and controlling occurred in the field research and fall semester phases
- Schedule management
  - When scope was reduced, that time was reallocated maintaining the project schedule
  - Work required was not documented in the schedule requiring the schedule to be updated
  - work packages duration (in hours) were overestimated, allowing for the tasks to be completed within the deliverable requirement dates
- Change control process is key to monitoring and controlling.
  - Two deliverables with the same name were easily confused
  - One of the project advisors recommended the change minimizing the confusion
- The risk management process is vital to the success of every project
  - Risks were managed in accordance with the risk management plan
  - The risk management plan used for this project is robust, but it lacked depth in the risk effects area
  - War gaming the effects of a risk is important in the beginning stages of the project

MONITORING AND CONTROLLING RISKS

- Risk #7
  - Project sponsor unable to include PM on field research
  - Caused the project research to shift from field work to focus on literary research
  - It is pertinent to be prepared for stakeholders to be busy and for schedules to change
- Risk #8.
  - This predetermined risk, required work to be completed that was not scheduled
  - Required the project manager to input six work packages and 12 hours of work into the project schedule
  - Negatively effected the metrics compared to baseline
  - The PM reviewed the remaining schedule to confirm that all work was documented on schedule

MONITORING AND CONTROLLING RISKS

- Risk #9.
  - Scheduled work was not completed during the summer research summary task
  - Due to field research not being conducted 5/10, 2-hour scheduled summer research sessions did not occur
  - Work was later complete during the fall semester.
- Risk #10, undocumented.
  - Work submitted late due to the status report not being input in the schedule
  - This caused .5 hours of unallocated time to be spent on completing and briefing this document
  - three other status reports that are required to be completed but were not on the schedule

CLOSEOUT

- The project closeout phase covers the closeout process group.
- One work package of seven has occurred. (submittal of the final execution plan)
- 6 work packages incomplete with estimated duration of 7 hours
  - Final presentation
  - Compilation and archival of all project management plan documents
- Meetings with the three project advisors and the project sponsor
- Project closeout is scheduled to occur on 4 December with deadline of 8 December

CLOSEOUT
LESSONS LEARNED

- Follow the syllabus (there's thought that goes into it)
- Document throughout the project

RESEARCH METHODOLOGY

- Organizational data, records and best practices were provided by the project sponsor
- These documents were used for the literary research and to be referenced within the execution plan
- All documents will be reviewed to build knowledge on the topic so a realistic plan can be built
- Incorporate best practices into the Execution Plan
- Documents support the project requirements defined in the project management plan

LITERATURE REVIEW

- The resources selected for this project are used by the subject matter experts when conducting their wild sheep research
- The resources reviewed, along with the best practices currently used, have been incorporated into the execution plan
- These sources were also reviewed with the Alaska Department of Fish and Game's current process used by the project sponsor
- The literature review is organized sequentially as the research will be conducted

RESOURCES

- Craig Fosters Capture Guidelines
  - Oregon Department of Fish and Wildlife document
  - Document is used by the ADFG as a standard in which to refer to and conduct their captures from
- Western Association of Fish and Wildlife Agencies (WAFWA) Bighorn Sheep Herd Health Monitoring Recommendations
  - Group of wildlife researches composed of over 20 states and provinces
  - Developed bighorn sheep Herd Health Monitoring
  - Document standardizes definitions, specifies sampling recommendations and protocols
- Reviewed with current ADFG best practices currently used
- The literature review is organized sequentially as the research will be conducted

Photo courtesy ADF&G

Photo courtesy ADF&G

Photo courtesy ADF&G

Photo courtesy ADF&G

Photo courtesy ADF&G

LITERATURE ANALYSIS

Figure 4: Wildlife Capture Ground Rules

1. Animal health is priority

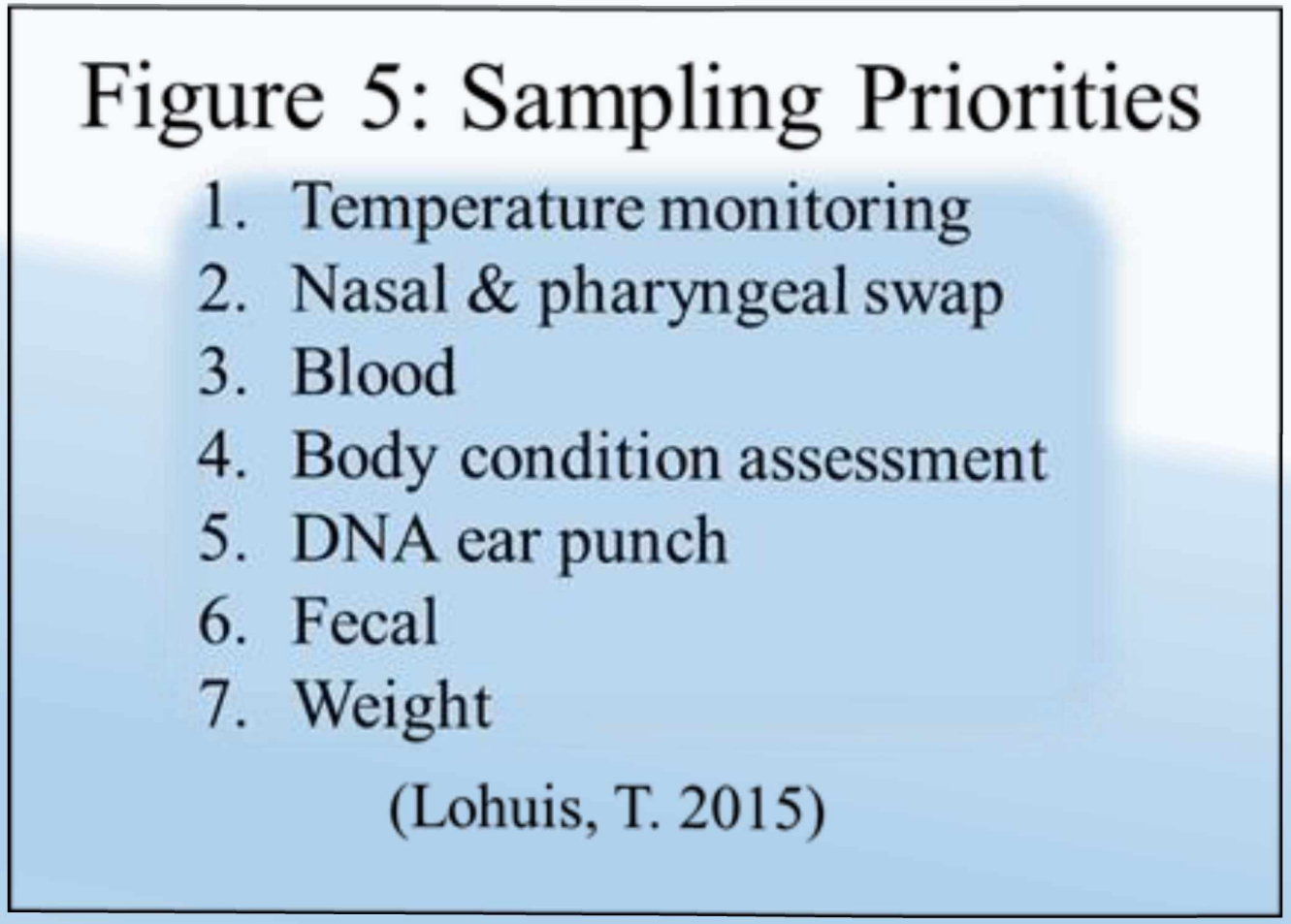
2. Five minute maximum helicopter chase time

3. 20 minute maximum to handling time including the helicopter chase time

4. Continuous temperature monitoring during handling is required, 106*F requires immediate release (this is 1 degree less than reaching the danger zone)

(Lohuis, T. 2015).

RESEARCH ANALYSIS



CONCLUSIONS AND RECOMMENDATIONS

- Use an existing, standardized project management process
  - The process used to complete the execution was derived from the PMI's PMBOK
  - Used as the global standard for managing projects
  - Any process however may be chosen
  - Use of the 5 process groups assist in completing a research project from beginning to end
  - If this recommendation is applied, the two following recommendations will be more easily corrected.
- Utilize a scheduling tool
  - The scheduling tool used to complete the execution plan was Microsoft Project however Oracle's Primavera is popular
  - It will greatly increase the PM's awareness and ability to analyze resources, budgets and timelines
  - Schedule the project dynamically
  - Assists PM to build customizable reports for managing and briefing
- Complete a thorough documentation process
  - Will assist if there is a required change of project manager
  - Documentation can be used to assist in future projects

OPPORTUNITIES AND FUTURE DEVELOPMENTS

- Adopt and incorporate a set of project management standards
  - Integrate these into project management plans (research plans),
  - Use to develop preferences and templates.
  - These templates would be saved and available for access by department
  - Building templates and best practices, allow opportunity to save time
  - Use the provided execution plan to develop an template project management plan
- Utilize the organizational project management maturity model (OPM3)
  - (knowledge, assess and improve)
  - develop their organizations project management maturity level based on self-examination and development.
  - Self identify and use the OPM3 Model
  - ADFG recommended to utilize a full or hire a full time manager or hire a contractor to develop and manage this program
- Development of a project archive
  - Manage a shared drive to better the documentation that occurs in the closeout process group
  - Archive has the opportunity to assist in developing future plans

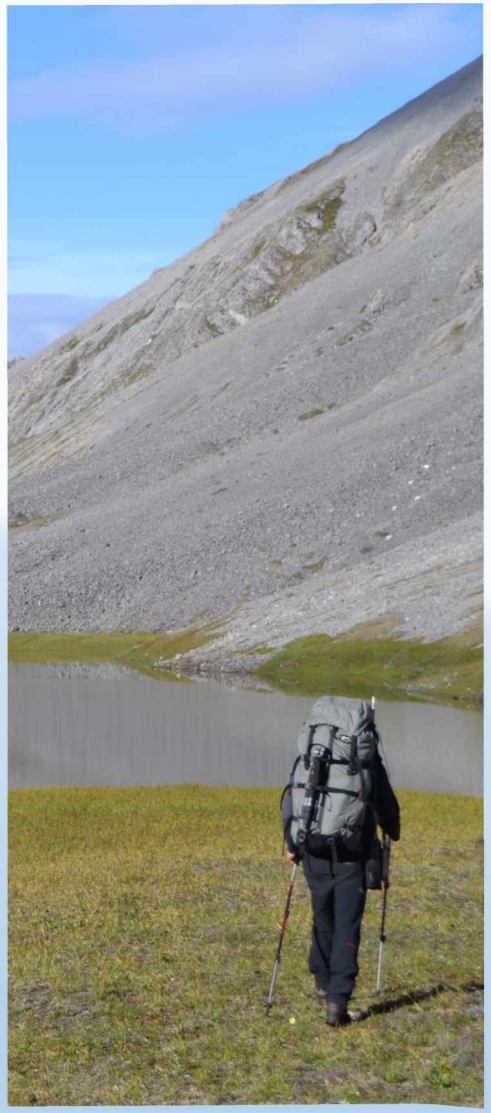
TAKE AWAY

ADFG has an complete execution plan

- With current documented best practices
- Plan is realistic and is usable for immediate execution
- Plan is modifiable for future seasons research
- Plan may be used as a template for other research projects

MSPM

- PM686A is complete with > 90%
- PM686B is forecasted to earn > 90%



QUESTIONS

Project Management Methodology applied to
Dall's Sheep Herd Health Assessments

Jeffrey Vance Johnson
30 November 15

Lessons Learned Narrative

Introduction

The purpose of the lessons learned narrative is to clearly explain what did and what did not work well throughout the PM686B course. In addition, this narrative will also explain what recommendation is made for following projects.

Scope Management

I recommend have a face to face stakeholder meeting to discuss the project scope, prior to officiation of the project charter.

For this project, managing scope size is critical. From what I have seen from other students and from my experience when your scope is too large to be able to complete all the documents, the project manager has no time to actually manage the project and make the required changes.

Scope was reduced for the research portion of the project when a risk occurred. When scope was reduced, that time was reallocated maintaining the project schedule. Ensure to remain flexible throughout the project as changes will occur.

Requirements Management

Follow the syllabus. Though you may not understand why you are completing a document at the time all work that was completed was required at some point throughout the project.

The success of this project lied with the project sponsor accepting the execution plan based on how the project was written. To ensure this was not an issue, regular sponsor meetings occurred ensuring portions of the execution plan were reviewed. Over time the sponsor was able to see the entire project. This allowed for recommendations minimizing the risk of the project sponsor not accepting the document

Schedule Management

Scheduling of work had several challenges throughout the project. The first was when building the schedule there was float throughout to allow flexibility. This however if not

managed appropriately could cause the PM to miss deadlines by waiting too long to complete the work.

There were also several weeks within the project schedule that no work could occur. This was appropriately coordinated with the schedule. Ensure to look at holidays, leave and other scheduling constraints.

There were status reports that were not input into the schedule. This caused work to not be tracked and was not completed on time.

The literary research and research report was a significant portion of the project hours. The research report required 24 hours of work but was estimated at 15 hours. This task that was grossly underestimated requiring additional unplanned work to be completed. This affected the SPI negatively.

Work was initiated on a task and the project sponsor was trying to report work on the task when it was realized it was not even scheduled. Ensure that all work that is required is on the schedule and work that is not required is not on the schedule. This may require reviewing phases of the project a second time prior to initiating them.

The work estimating process of this project was regularly overestimated. The estimating process used for was subject matter expert estimation. The majority of the work packages were overestimated, effecting the KPI's.
•Re-baseline the project with the actual work hours completed if this schedule is to be used as template.

Quality Management

Ensure to document anything that you think may be important throughout the project. This will ensure that you have captured most of your requirements prior to the end of the project.

Communications Management

If you are completing a survey or interviews for your research ensure to complete these ahead of schedule. Many students had issues completing this work or analyzing the results took much longer than initially planned. This is a portion of the project that can delay your project significantly.

Change control process is key to monitoring and controlling. Two deliverables had the same name and were easily confused when discussed at the same time. One of the project advisors recommended the change minimizing the confusion.

Risk Management

Forecasted effects of risks occurring were not given enough thought beforehand. Ensure to spend time forecasting effects of risks as there are generally secondary and tertiary effects that occur. Planning for a risk to occur and its effect speeds up response.

As risks occurred and I was completing my risk realization document it quickly stood out that I was not spending enough time forecasting the effects. Though I may have understood the initial effect, I did not think about it in depth. I recommend war gaming the risk completely as there can be multiple effects from one risk occurring.

There was an undocumented risk that occurred. Though there was not a large effect in this instance in the future it is worthwhile to spend more time on development of the risk register.

Project Management Methodology applied to
Dall's Sheep Herd Health Assessments

Jeffrey Vance Johnson
4 December 15

Knowledge Areas for PM686B

The following three knowledge areas have been selected and assessed for demonstration of mastery during the PM686B course.

Project Scope Management

Project scope management will be applied through a scope management plan. The scope management plan will complete the process of how scope will be defined, validated and controlled. They will all include a narrative as part of the documentation process

Mastery will be measured with;

- WBS - Any work that is required and not shown as a work package on the WBS will be documented. Any work that is not required to be completed will be inactivated and documented on why work was not required. A total count of changes will be tracked.
- Change control process – The change control process is an important requirement and documentation of all changes is essential. Success will be assessed by monitoring the proposed changes and ensuring any incorporated changes are updated throughout the PMP. A total count of changes will be tracked.

Assessment

- WBS – The largest changes that have occurred were in the Final Report tasks. This required 6 work packages to be added and 21 hours of work. This was a predetermined risk and will be further explained below. During the PM686B there were 30 total WBS changes.
- Change control process - There were no change requests submitted during this period. There has been 1 change request which was submitted and approved during the 686A PPM3 period.

Project Risk Management

Project Risk Management will be applied to the project with a risk management plan. The risk management plan is a priority for all projects, especially a project with fieldwork. Identifying risks ahead of time and mitigating risks to decrease the likelihood of impact and opportunity will be key.

Mastery will be measured with;

- Risk register; the risk register is the document that compiles all risks for the project and shows what assessments have been made for each risk. Success will be assessed by ensuring all known risks are documented and mitigation and response methods are in place. By ensuring any risks that occur were previously documented with a response method in place, mastery will be achieved. Using the risk register I will also continue assessing and documenting risks throughout the project. A total count of additional and risk occurrences will be documented.
- Risk traceability; Risk traceability is incorporated into the risk register. The purpose of this is to determine where risks are most likely to occur and to be able to focus on risks that are expected to occur and not risks that are no longer a threat. Risks that occur will be traced back to the RTM. Risks that occur will be traced

back to the work package. A count will be kept for risks that were planned to occur in a specific package and were not. This will allow me to determine how thorough my RTM was.

Assessment

- Risk register; throughout the project there were 4 risks that occurred. One that was predicted and 3 that were. One documented risk occurred. Risk #8 work completed that is not scheduled occurred. Due to the status research report work being completed that was not on the schedule, additional work packages were added. This affected my SPI as this work was not baselined. A rebase lining was not completed. It was immediately documented in the risk realization matrix. The schedule was reviewed in its entirety to confirm that there is not work to be completed that is not on the schedule.
- Risk traceability; during this semester one documented risk occurred that was on the RTM.

Project Time Management

Project Time Management will be applied through the time management plan. This plan will establish the criteria for developing, monitoring, and controlling the schedule.

Mastery will be measured with;

- Project completion time; any work packages that are not completed by the predetermined work date will be documented. Success will be assessed by the overarching deadline submission date. The ultimate deadlines for this project are for PPM submission. As long as the required PPM deliverables are completed by the PPM deadline, the schedule is deemed successful. If products are not complete before the PPM submission deadline, the related work packages are deemed unsuccessful
- Sequencing – With Microsoft Project set to auto schedule and tasks sequenced correctly, the work will be arrayed in a chronological completion order. Simply by arraying work in chronological order divided work completed out of the estimated order will deem this successful.
- Monitor schedule using EV, EFI and SPI
- Produce schedule status reports

Assessment

- Project completion time; having a dynamic schedule with slack built in, completing work packages on time is not a problem. Each PPM has been submitted on time.
- Sequencing – The sequencing of the project has been successful. In two instances however, as I input completion data into a work package the schedule will give resource over allocation warnings. I have made a modification to the schedule to allow work to be completed 30 days a month. This has assisted in this issue.
- Monitor schedule using EV; EFI is currently is 1.23 and the SPI is 1.05
- Produce schedule status reports; Schedule status reports have been produced. I have modified my status reports by completing a PowerPoint slide that is easier for the stakeholders to review and understand.

Project Management Plan

Project Name: Project Management Methodology applied to Dall's Sheep Herd Health Assessments

Project Manager: Jeffrey Vance Johnson, UAA, MSPM Student

Project Sponsor: Thomas Lohuis, ADFG, Wildlife Biologist

Project Committee: Roger Hull, UAA, PM Dept. Instructor
LuAnn Piccard, PM Dept. Instructor
Seong Dae Kim, PM Dept. Instructor

Prepared By

Document Owner(s)	Project/Organization Role
Thomas Lohuis	Project Sponsor
Vance Johnson	Project Manager

Project Management Plan Version Control

Version	Date	Author	Change Description
1	30 Jan 15	Vance Johnson	Document created
2	09 Feb 15	Vance Johnson	Significant additions to PMP and subsidiary plans
3	01 Mar 15	Vance Johnson	Additions to PMP and subsidiary plans and change request
4	20 Mar 15	Vance Johnson	Additions to PMP and subsidiary plans
5	27 Mar 15	Vance Johnson	Review and edits to PMP
6	02 Apr 15	Vance Johnson	Final Review

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ABSTRACT

Assessing Dall's sheep herd heath is the first step to monitoring and is key to managing the resource. Currently Alaska does not have a baseline data set, therefore the ADFG will conduct health testing to develop a baseline data set to determine presence and prevalence of wildlife diseases in wild mountain sheep populations in south-central Alaska. In order to develop this baseline, three to seven years of disease study work will be conducted by capturing 30-40 sheep annually in order to take several samples. These samples will be analyzed to determine what types of disease, bacterial and viral, currently exist in the population. A different mountain range will be sampled annually to build the knowledge base. This knowledge base will build a foundation for study of Alaska's Dall's sheep population for the 7 years span of capture and assessment. In the event that there is an all age die off that has been seen in bighorn sheep herds in the lower 48, ADFG will be able to refer to the samples collected and determine if the disease already existed in the population or if there was an external introduction. Though ADFG conducts projects regularly, project management methodologies are not applied to their plans. I will produce an execution plan for the ADFG annual health assessment work incorporating project management methodologies that can be used to conduct their study. This execution plan will document current best practices that allows a project manager of minimal experience to execute this plan or use it as a template to build a customized plan. This tool effectively allows biologists to focus their time on research by optimizing the planning process while producing more robust and effective project documentation.

1 SCOPE STATEMENT

1.1 BACKGROUND

The Alaska Department of Fish and Game (ADFG) is tasked by the Governor of Alaska to protect, maintain, and improve the fish, game, and aquatic plant resources of the state. They manage approximately 750 active fisheries, 26 game management units, and 32 special areas with an annual operating budget of $200 million. Using the highest standards of scientific integrity the ADFG promotes sustainable management programs in order to optimize public use and economic benefits. Vital to their mission and goals are to make policy and management decisions while providing education and outreach programs, to interact with and involve the public.

In order to make policy and management decisions numerous research projects are conducted annually. They however, do not incorporate project management methodologies. Without the use of project management, their projects are potentially not as successful as possible. I will develop an execution plan for the ADFG as a tool that allows effective data collection and documentation. This is facilitated by building an executable plan to be used to conduct research or as a template that allows biologists to focus additional effort on research rather than burdensome planning requirements.

1.2 SCOPE STATEMENT

This project will provide a complete execution plan for ADFG to implement their *Dall's Sheep Herd Health Assessment Project*. Utilizing project management methodology, an execution plan will be written including all sections and background research required to carry out the plan. The execution plan will facilitate one season of operations so it may be applied and modified for future seasons. There are no funds allocated to the project as all hours are volunteer hours. The final deliverable is the execution plan furnished in a printed document as well in the applicable electronic form.

The project will start at the first topic research session.

The project will end with the delivery of the execution plan to the ADFG or final closeout of project with UAA; whichever is last.

1.3 OBJECTIVES

The objectives of the Project Management Methodology applied to Dall's Sheep Herd Health Assessments Project are:

- Develop an execution plan for ADFG to implement their project when required and to be used as a basis to build future plans
- Conduct research in order to write such a plan
- Complete PM686A andPM686B with an A (>90%)

1.4 DELIVERABLES

There are several deliverables required to be completed for this project to be successful. If the deliverables are not complete this project will not be successful. The Project Manager is responsible for the completion of the deliverables. The deliverables for the Project Management Methodology applied to Dall's Sheep Herd Health Assessments Project are:

- A complete and thorough execution plan including all required internal plans in printed and electronic form
- Completion of PM686A and PM686B including all deliverables required for course completion

1.5 EXCLUSIONS

Exclusions from the Project Management Methodology applied to Dall's Sheep Herd Health Assessments Project are:

- Implementation and execution of the execution plan
- Project research recommendations for best practices outside of project management
- Any contracts that are required will not be written or included in the plan
- Procuring supplies
- Determine specific human resources for execution (i.e., Names)

1.6 ASSUMPTIONS

Assumptions for the Project Management Methodology applied to Dall's Sheep Herd Health Assessments Project are:

- ADFG will provide accessibility to information required to conduct research and write the plan
- ADFG will accept completed plan

1.7 CONSTRAINTS

Constraints on the Project Management Methodology applied to Dall's Sheep Herd Health Assessments Project are:

- Project Manager has a full time job therefore limiting time available
- All resources are limited to volunteers
- There are no funds available
- PM686A and PM686B must be completed in semesters
- Project must adhere to PM686A and PM686B syllabi requirements
- Supply purchase location is determined by ADFG
- Sheep capture guidelines adhere to Craig Foster Capture Guidelines, 2004

- Herd health monitoring practices adhere to WAFWA Wildlife Health Committee 2014 Bighorn Sheep Herd Health Monitoring Recommendations, Draft, 2014

1.8 REQUIREMENTS

The following are requirements for the project;

- Execution Plan to include
  - Current best practice capture processes and guidelines – The document is to be referenced for capture guideline in the PMP. These guidelines will be used and do not require any further documentation or research.
  - Current WAFWA Bighorn Sheep Herd Health Monitoring Recommendations – These recommendations are completed by a peer group who conduct herd health monitoring regularly. The ADFG will use these guidelines for the capture work and do not require any further documentation or research.
  - Simple, succinct, executable and modifiable document as determined by ADFG.
  - Hard copy furnished in binder along and cd including final document in adobe and electronic modifiable format (word, excel, project).
- All PM686A & 686B requirements

1.9 CRITICAL SUCCESS FACTORS

The Project Management Methodology applied to Dall's Sheep Herd Health Assessments Project will be a success if the following are accomplished:

- Plan is practical for ADFG to operate from
- Plan is realistic and is usable as a model for future plans
- Plan expands on current processes with application of project management principles
- Plan is completed in conformance with PM686A and PM686B timeline

2 SCOPE MANAGEMENT PLAN

The scope management plan documents how to manage, control and verify the project scope and what is communicated. Most importantly, it includes all of the work and only the work. The scope management plan is the project managers' responsibility. Scope will be managed through effectively verifying and controlling scope as outlined in the change control process.

2.1 WORK BREAKDOWN STRUCTURE

The project is divided by time frames (spring semester, summer research, and fall semester) excluding project management and project closeout. The WBS will be created in conjunction with the master schedule using Microsoft Project 2013 and WBS Chart Pro. The Work Breakdown Structure (WBS) can be found in Appendix A.

2.2 SCOPE VERIFICATION

Confirming that the project conforms to the defined scope must be accomplished. The project manager will review the scope statement at each PPM. This will ensure that the scope is current and does not need modified and that the project is staying on track. As a secondary review the project committee and project sponsor will notify the project manager if at any point during review they notice the project is off scope. Any work that is not part of the schedule and WBS will be considered out of scope. If at any point the scope statement needs to be changed, the change control process will be adhered to.

2.3 CHANGE CONTROL PROCESS

The purpose of the change control process is to document and control changes throughout the project. Changes are not and should not be looked at as negative. The change control process is not overly complex or burdensome. The change control process will ensure that all proposed changes are defined, reviewed, documented and communicated with an approval or rejection.

If a scope change is requested, the project manager will complete a change request using the standard template. All change requests must be documented on the table below and the request saved for project closeout. The project manager has the authority to make any changes required to the project that do not violate the PM686A or PM686B courses syllabus except changes to project scope. Changes to scope will be approved by the project committee lead. If the change affects the course completion, a minimum of one member of the project committee must approve the change request. Changes or additions to the schedule or WBS do not require a change request. Any other changes may be made solely by the project manager.

Number	Description	Approval	Date
01	Product terminology change	Approve	01 Mar 15
This change modified the product name to Execution Plan from Project Management Plan.			

3 REQUIREMENTS MANAGEMENT PLAN

The requirements management plan describes how the project requirements are determined, analyzed, documented and managed. Project success is directly influenced by stakeholder involvement in determining what is required for the project to be deemed successful.

3.1 REQUIREMENTS

Requirements may be determined by any and all stakeholders in the project. They have been influenced by or based on regulation, policy or function. Primarily requirements have been determined by the Project Sponsor, and course requirements.

3.2 REQUIREMENTS TRACEABILITY MATRIX

Requirements will be planned, tracked and reported on the requirements traceability matrix. The matrix can be found with the WBS dictionary in Appendix D (RTM)

3.3 REQUIREMENTS PRIORITIZATION

Requirements prioritization is a key part of requirements management. Requirements determine the scope, time and cost of the project. By understanding the stakeholder's requirements, the project will be more likely to succeed and less likely to be out of scope. Requirements may be added or cut appropriately if necessary. Requirements will be prioritized.

Priority	Definition
Low	These requirements are quality or functional enhancements and are only implemented if time or resources permit
Medium	These requirements support product and process operations but can be completed later
High	These requirements are critical to the project and required for success

4 SCHEDULE MANAGEMENT PLAN

The schedule management plan describes how the project schedule will be analyzed, documented and managed. Project success is directly influenced by schedule management.

4.1 MASTER SCHEDULE

The project master schedule contains all of the work to be accomplished. The schedule will be estimated on Microsoft Project 2013 and at a minimum include the task name, resource, cost, work (in hours), and predecessors. The master schedule can be found in Appendix B.

4.2 SCHEDULE MAINTENANCE

The project manager is responsible for all work related to maintaining the schedule. The schedule will be maintained as the work is completed. Any work that is being accomplished on the project must be incorporated and tracked on the schedule. If work is being completed that is not on the schedule it must be added and tracked. The master schedule will be updated weekly to track work completion. As stated in the change control process, changes to the schedule do not require a change request unless they jeopardize PM686A or PM686B course syllabi deadlines.

4.3 STATUS REPORTING

The project manager will track all hours worked using Microsoft Project. As tasks are completed the actual work hours will be tracked for time management.

5 RESOURCE MANAGEMENT PLAN

The resource management plan describes how the resources will be used and their cost. Project success is directly influenced by schedule management

5.1 BUDGET

In compliance with the project charter, there are no funds allocated to this project. Cost reporting is not required.

5.2 HUMAN RESOURCES

All of the work is considered volunteer hours for this project as zero funds are allocated to the project from the project charter. All resources will be given a 1$ resource rate allowing CPI to be tracked as an effort performance index (EFI). The only resource that is allocated specifically to the project is the project manager. The project sponsor works for a separate organization and will not allocate any hours to this project. The project committee are full time university staff therefore their hours will not be allocated to this project. All members have signed the Student Committee Contract that can be found in the supporting documents. In addition to the primary responsibilities outlined below all members will adhere to this document.

5.3 DESCRIPTION OF RESPONSIBILITIES

Project sponsor – The project sponsor gives support to the project and ensures that the project adds to the body of knowledge. He is the recipient of the project deliverable. He is not responsible to work on the project however is requested to assist with technical questions and provide knowledge on the subject.

Project Manager – The project manager completes all work required to complete the deliverable. He will complete all administrative duties, provide status reports, and remain overall accountable.

Project Committee – The project committee will provide assistance and be available for help when the project manager requests. They will advise, monitor progress, grade deliverables, conduct go/no-go checkpoints and provide any required support.

Administrative Staff – The MSPM administrative staff will provide assistance on project when the project committee expertise is not required. They will provide administrative assistance in preparation of deliverables.

5.4 SUPPLIES

Supplies that are required for the execution of the execution plan will be determined project to include location to order, cost and quantity. The executing project manager will be required to resource the supplies.

6 QUALITY MANAGEMENT PLAN

The purpose of the quality management plan is to determine the quality objectives and responsibilities that are required to complete the project. This plan also identifies the requirement for the project and how the project demonstrates compliance. The quality management plan supports continuous process improvement.

6.1 QUALITY ASSURANCE AND CONTROL

The purpose of quality assurance is to audit the quality requirements to ensure the appropriate product is delivered. Quality assurance will be conducted through project reviews. Prior to being submitted the project manager will review and if available, have a member of the project committee review the deliverables. The project manager will solicit feedback and receive changes from this review. The project sponsor when available will also review the product to ensure the technical expertise required for project execution is being implemented in the plan. In order to control quality, results must be documented. This will occur with the reports delivered to stakeholders in accordance with the communication management plan.

6.2 STATUS REPORTING

The project manager will complete all status reports as required by the PM686A and PM686B syllabi and agreements with the stakeholders. Reports will be baselined at the project start on 16 January 2015 and all reporting will be from this baseline. Reports will be used to assess the project status and report to stakeholders. The schedule was

6.3 METRICS

To ensure the project delivers the requirements, the project manager will use earned value management. These metrics will be collected for status reports per the capstone requirements.

Performance will be monitored using an effort performance index (EFI) which is the actual work/ planned work. Because there is no budget, the resources will be given a one dollar hourly rate which will allow the cost performance index to be reported as an EFI. This EFI will be monitored; however, the schedule will be monitored using the schedule performance index (SPI). The project will never be terminated due to a low EFI.

The progressing method for the project is % complete based off of work hours reported.

7 COMMUNICATIONS MANAGEMENT PLAN

The communications management plan provides a framework for the communications used throughout the project. It will serve as a guide for communications throughout the life of the project and will be updated as necessary. This plan identifies the roles and responsibilities of the stakeholders in this project. It provides the who, what, where, when, why, and how communications are used. The project manager will ensure the project communications management plan is planned, implemented, monitored and controlled during this project.

7.1 INFORMATION DISTRIBUTION

Information sharing will be accomplished primarily through class sessions, meetings, phone calls and email. Any documents to be shared will be accomplished through email and all final products will be submitted on Blackboard. For any stakeholders that do not have Blackboard, final products will be emailed.

7.2 REPORTING

The project manager will provide a bi-weekly status update to the project sponsor and the committee members. These reports are distributed separately as the content between the two weekly reports differ. The committee members will provide feedback based upon the status report and deliverables. Committee members may do this in the form of an email, face-to-face meeting, phone call, or any other method desired. If done verbally, the project manager will recap the meeting and input it into the project communications log.

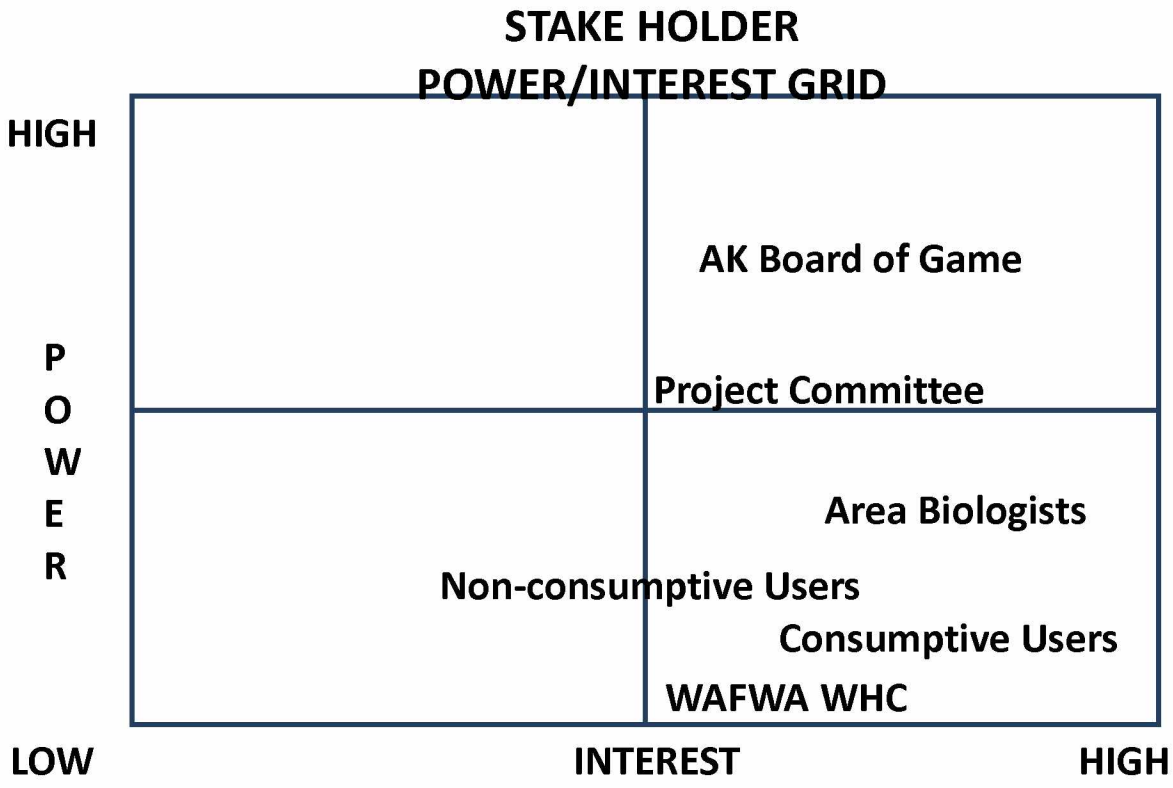
7.3 STAKEHOLDER ANALYSIS

The stakeholder register is a base requirement for a successful project. The stakeholder register analyzes each stakeholder through several parts. There is identification information that gives their organization, title, location, project role and contact information. The second section displays their assessment information that includes major requirements, measures of success, expectations, primary concerns and any other necessary notes. The third section displays their classification by their current level and desired level of support, relationships and other notes. The final section is communication and breaks down the mode, frequency, level of detail, format and other notes. The stakeholder register can be found at appendix E.

This space is intentionally left blank

7.4 POWER INTEREST GRID

The power interest grid is a tool that allows a graphical array of the stakeholders. This tool categorize project stakeholders with increasing power and interest in the project. It also helps the project team focus on key stakeholders who have the largest effect on the project. This tool is to be used and updated along with the stakeholder analysis.



8 RISK MANAGEMENT PLAN

The risk management plan provides a framework for the risk mitigation and response used throughout the project, and will be updated as necessary. This plan identifies the risk management approach, identification, qualification and monitoring techniques.

8.1 RISK MANAGEMENT

The purpose of the risk management plan is to establish the structure in which risks will be managed and avoided or mitigated. Risk management for this project includes identification, qualitative analysis, and mitigation and planned risk responses. A quantitative risk analysis will not be completed for this project due to no costs being associated to the project. Risks can be identified by any stakeholder and the project manager will document all risks.

The project manager will monitor and control risks by regularly reviewing the risk register and incorporating any risks that were identified for that week into the status report. If an identified or unidentified risk occurs, the project manager will execute the risk response then update the risk register accordingly.

8.2 RISK MANAGEMENT APPROACH

The approach to be taken to manage risks for this project includes a qualitative process by which risks will be identified, responded to, accepted or mitigated. Risks will be associated to all applicable tasks for risk tracking. As risks occur, they will be documented and responded to if applicable. Upon completion of the risk, the project manager will analyze each risk to determine if the risk was managed properly if additions should be made.

8.3 RISK IDENTIFICATION

Risk identification is conducted through personal experience of the project manager and review of previous projects through the ESPM Project and Thesis Library.

8.4 RISK QUALIFICATION

In order to determine the risk level of identified risks, a qualitative likelihood and impact factor is assigned to each risk from 1-5. For likelihood, a one is not likely, 3 is likely and 5 is very likely. For impact, 1 is negligible, 3 is marginal and 5 is significant. The total of these values after being multiplied by each other determines the risk level. A

risk level of 1-7 is low, 8-15 is moderate and 15-25 is high. Due to the significance of this project all risks will be responded to appropriately; however, if two risks occur at the same time, the risk with the highest potential impact will be responded to first.

Once the risk levels are assigned, the project manager determines the response type. The response types primarily used are mitigate, transfer, and accept. If a risk is mitigated the risk level will be re-calculated. These post-mitigation scores will be used for response priorities.

8.5 RISK MONITORING

Risk monitoring will be a continuous process, performed daily throughout the project. As risks are expected to occur or do occur during the project, the pre-planned responses will be implemented and the risk will be documented on the Risk Realization Matrix. As additional risks are identified, they will be added to the risk register. During the monthly project review completed in class, the Project Manager will note risks that were to occur during the previous month. In addition the PM will discuss whether the risks occurred and what the response and effects were.

8.6 RISK REGISTER

The Risk Register for this project is a log of all identified risks. Each risk explicitly states the name, description, initial likelihood/ impact and risk level, response, secondary likelihood/ impact and risk level and the owner. The risk register can be found in Appendix C (Microsoft Excel File).

The Risk Realization Matrix for this project is a log of all identified risks, their overall qualitative score, risk planning factors, secondary risk, and post mitigation/response qualitative score. Any risks that occur, including unidentified risks will be tracked on this document. The risk realization matrix can be found in Appendix C tab 2 (Microsoft Excel File).

9 CLOSEOUT MANAGEMENT PLAN

9.1 LESSONS LEARNED

Lessons learned identification and documentation will begin at the project start. The lessons learned will be documented on the lessons learned document and broken into two sections; planning and execution. Each lesson learned will define the success/problem, impact and recommendation. This document will be completed by the project manager, but lessons learned can be provided by any of the stakeholders. This document will also be archived during project closeout.

10 APPROVAL

Prepared by _____
Project Manager

Approved by _____
Project Committee Lead

_____
Project Sponsor

11 APPENDICES

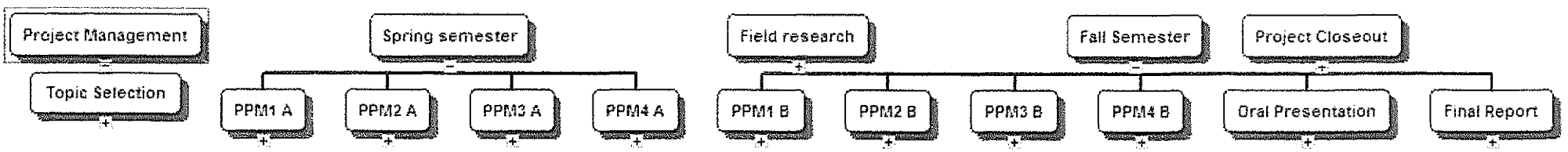
11.1 APPENDIX A (WBS)

11.2 APPENDIX B (Master Schedule)

11.3 APPENDIX C (Risk Register)

11.4 APPENDIX D (RTM)

11.5 APPENDIX E (Stakeholder Register)

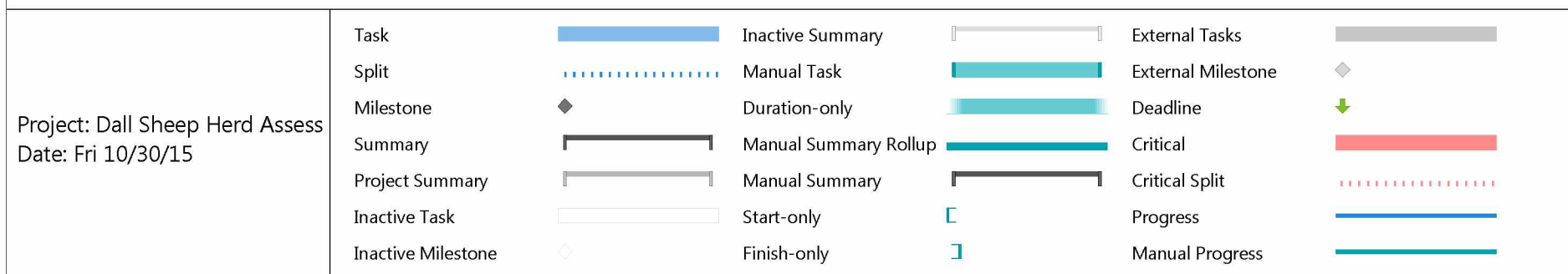

Project Management
Topic Selection
Spring semester
PPM1 A
PPM2 A
PPM3 A
PPM4 A
Field research
PPM1 B
PPM2 B
PPM3 B
PPM4 B
Fall Semester
Project Closeout
Oral Presentation
Final Report

ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
0		0	**Dall Sheep Herd Assessment PMP**	**1873 hrs**	**318 hrs**	**Fri 1/16/15**	**Tue 12/8/15**	
1		1	**Project Management**	**15 hrs**	**13.23 hrs**	**Wed 1/28/15**	**Fri 1/30/15**	
2		1.1	**Topic Selection**	**15 hrs**	**13.23 hrs**	**Wed 1/28/15**	**Fri 1/30/15**	
8		2	**Spring semester**	**545 hrs**	**148.68 hrs**	**Fri 1/16/15**	**Mon 4/20/15**	
9		2.1	**PPM1 A**	**29 hrs**	**26.5 hrs**	**Fri 1/16/15**	**Wed 1/21/15**	
20		2.2	**PPM2 A**	**203 hrs**	**42.18 hrs**	**Wed 1/21/15**	**Wed 2/25/15**	**9**
37		2.3	**PPM3 A**	**216 hrs**	**46.97 hrs**	**Sat 2/7/15**	**Wed 3/18/15**	**20**
59		2.4	**PPM4 A**	**201 hrs**	**33.03 hrs**	**Wed 3/18/15**	**Mon 4/20/15**	**37**
74		3	**Field research**	**483 hrs**	**10 hrs**	**Sat 6/13/15**	**Mon 9/7/15**	**8**
88		4	**Fall Semester**	**572 hrs**	**138.07 hrs**	**Fri 8/28/15**	**Tue 12/8/15**	**74**
89		4.1	**PPM1 B**	**96 hrs**	**28.5 hrs**	**Fri 9/4/15**	**Mon 9/21/15**	
110		4.2	**PPM2 B**	**235 hrs**	**24.78 hrs**	**Fri 8/28/15**	**Thu 10/8/15**	**89**
132		4.3	**PPM3 B**	**112 hrs**	**19.53 hrs**	**Mon 10/26/15**	**Fri 11/13/15**	**110**

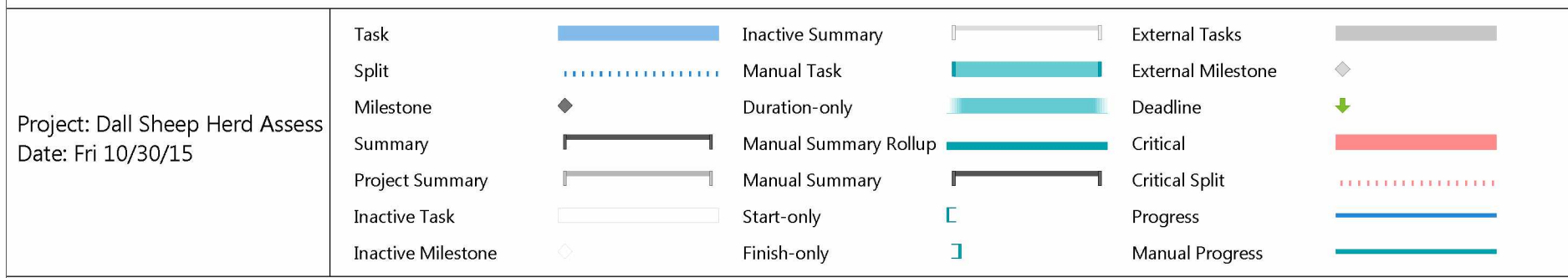
Project: Dall Sheep Herd Assess
Date: Fri 10/30/15

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Critical
Project Summary	Manual Summary	Critical Split
Inactive Task	Start-only	Progress
Inactive Milestone	Finish-only	Manual Progress

ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
133		4.3.1	Status Report	1 hr	0.5 hrs	Wed 11/4/15	Wed 11/4/15	
134		4.3.2	Draft research paper setting 1	1 day	4 hrs	Mon 10/26/15	Mon 10/26/15	
135		4.3.3	Draft research paper setting 2	3 hrs	3 hrs	Sat 10/31/15	Mon 11/2/15	
136		4.3.4	Draft research paper setting 3	8 hrs	4 hrs	Tue 11/3/15	Tue 11/3/15	
137		4.3.5	Revised abstract	0.13 days	1.03 hrs	Fri 10/30/15	Fri 10/30/15	
138		4.3.6	Research results and analysis	0.06 days	0.5 hrs	Fri 10/30/15	Fri 10/30/15	
139		4.3.7	Prelim conclusions/delivera	0.06 days	0.5 hrs	Fri 10/30/15	Fri 10/30/15	
140		4.3.8	Update schedule	0.13 days	1 hr	Fri 10/30/15	Fri 10/30/15	
141		4.3.9	Knowledge area update	0.5 hrs	0.5 hrs	Mon 11/2/15	Mon 11/2/15	140
142		4.3.10	Submit PPM3 B	0.5 hrs	0.5 hrs	Thu 11/5/15	Thu 11/5/15	134,137,138,139,1
143		4.3.11	Go/No-Go Decision #2B	0 days	0 hrs	Fri 11/13/15	Fri 11/13/15	142
144		4.3.12	Instructor Meeting 1	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	134
145		4.3.13	Instructor Meeting 2	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	144



ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
146		4.3.14	Instructor Meeting	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	145
147		4.3.15	Sponsor Meeting	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	134
148		**4.4**	**PPM4 B**	**80 hrs**	**29 hrs**	**Fri 11/13/15**	**Fri 11/27/15**	**132**
160		**4.5**	**Oral Presentation**	**17 hrs**	**7 hrs**	**Fri 11/27/15**	**Tue 12/1/15**	**148**
163		**4.6**	**Final Report**	**433 hrs**	**29.25 hrs**	**Wed 9/23/15**	**Tue 12/8/15**	**160**
164		4.6.1	Build report outline	2 hrs	0.25 hrs	Wed 9/23/15	Wed 9/23/15	
165		4.6.2	Draft Report	3 hrs	2 hrs	Wed 9/23/15	Wed 9/23/15	164
166		4.6.3	Draft Report	2 hrs	2 hrs	Fri 9/25/15	Fri 9/25/15	165
167		4.6.4	Draft Report	4 hrs	2 hrs	Tue 9/29/15	Tue 9/29/15	166
168		4.6.5	Draft Report	5 hrs	5 hrs	Sat 10/10/15	Mon 10/12/15	167
169		4.6.6	Draft Report	5 hrs	5 hrs	Sun 10/11/15	Mon 10/12/15	168
170		~~4.6.7~~	~~Edit Report~~	~~2 hrs~~	~~2 hrs~~	~~Tue 12/1/15~~	~~Tue 12/1/15~~	~~169~~
171		~~4.6.8~~	~~Edit Report~~	~~2 hrs~~	~~2 hrs~~	~~Tue 12/1/15~~	~~Tue 12/1/15~~	~~170~~



ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
172		4.6.9	Prepare final report	0.13 days	1 hr	Tue 12/1/15	Tue 12/1/15	171
173		4.6.10	Print report docs	0.13 days	1 hr	Wed 12/2/15	Wed 12/2/15	172
174		4.6.11	Prepare summary narrative	0.5 days	4 hrs	Thu 12/3/15	Thu 12/3/15	
175		4.6.12	Knowledge area narrative	0.25 days	2 hrs	Fri 12/4/15	Fri 12/4/15	
176		4.6.13	Submit Final Report	0.13 days	1 hr	Tue 12/8/15	Tue 12/8/15	175,174,173,172
177		4.6.14	Instructor Meeting 1	0.13 days	1 hr	Tue 12/1/15	Tue 12/1/15	172
178		4.6.15	Instructor Meeting 2	0.13 days	1 hr	Wed 12/2/15	Wed 12/2/15	177
179		4.6.16	Instructor Meeting 3	0.13 days	1 hr	Thu 12/3/15	Thu 12/3/15	178
180		4.6.17	Sponsor Meeting	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	172
181		**5**	**Project Closeout**	**24 hrs**	**8 hrs**	**Wed 12/2/15**	**Mon 12/7/15**	**162**
182		5.1	Complete 686B presentation	0.13 days	1 hr	Wed 12/2/15	Wed 12/2/15	
183		5.2	Compile/archive docs	0.25 days	2 hrs	Fri 12/4/15	Fri 12/4/15	182
184		5.3	Instructor Meeting 1	0.13 days	1 hr	Thu 12/3/15	Thu 12/3/15	182

Project: Dall Sheep Herd Assess
Date: Fri 10/30/15

Task	Inactive Summary	External Tasks
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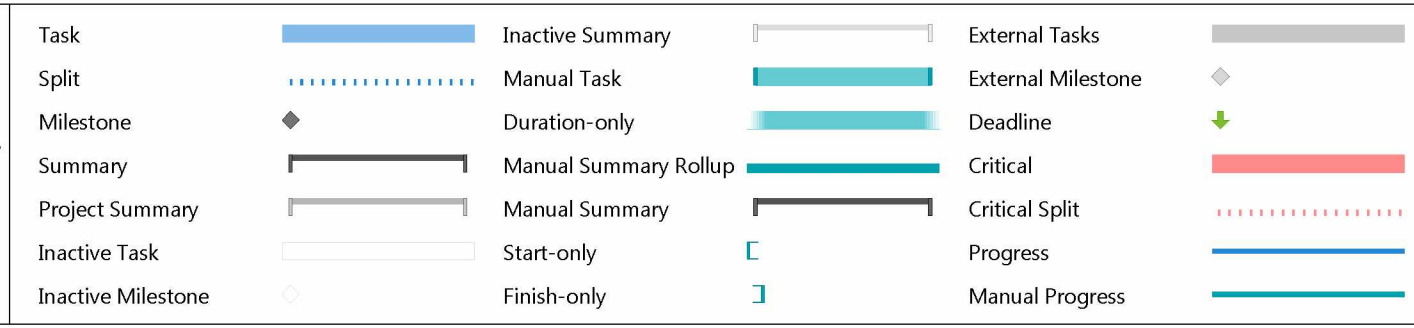
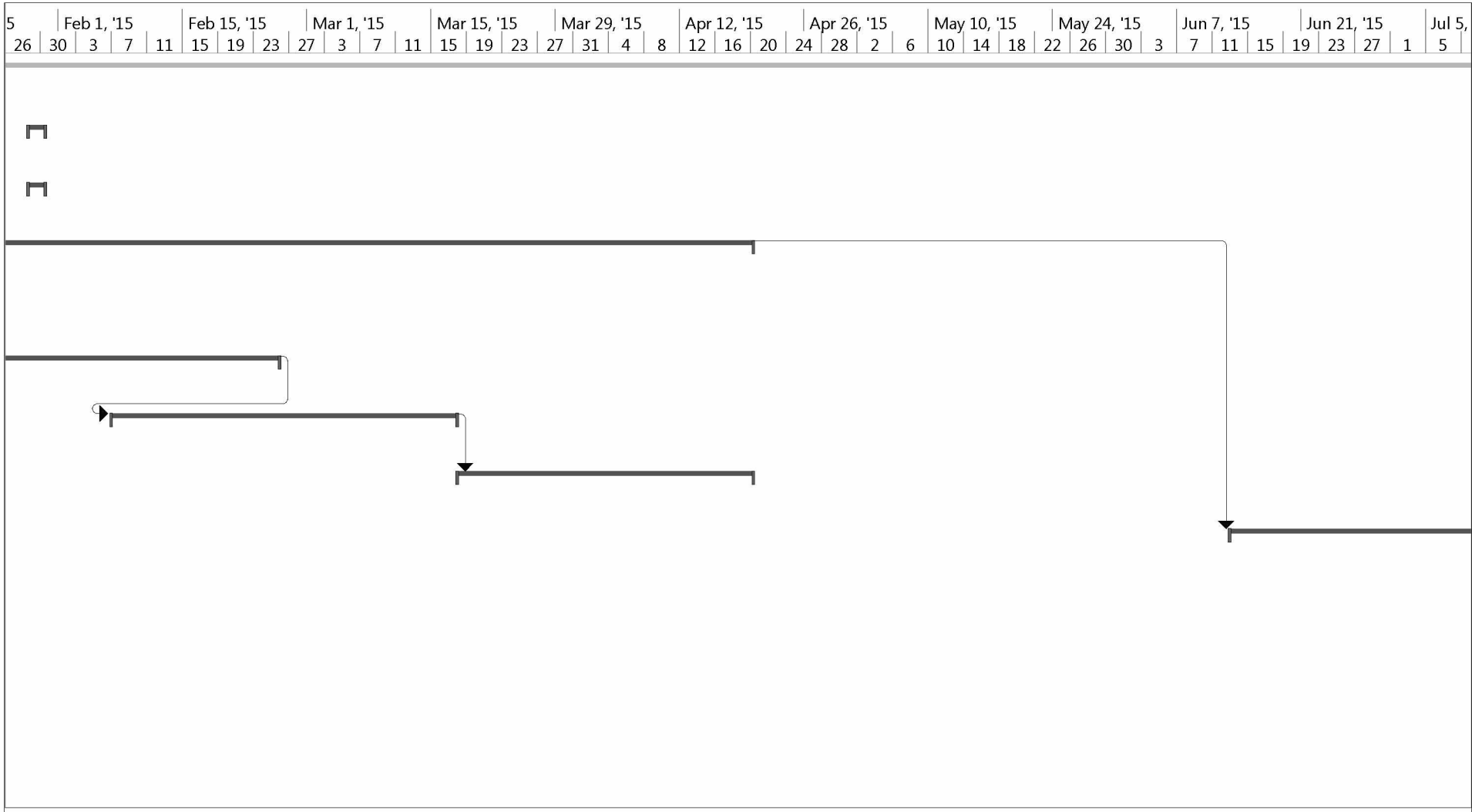
Project Summary	Manual Summary	Critical Split
Inactive Task	Start-only	Progress
Inactive Milestone	Finish-only	Manual Progress

ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
185		5.4	Instructor Meeting 2	0.13 days	1 hr	Fri 12/4/15	Fri 12/4/15	184
186		5.5	Instructor Meeting 3	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	185
187		5.6	Sponsor Meeting	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	182
188		5.7	Submit PMP to ADFG	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	183

Project: Dall Sheep Herd Assess
Date: Fri 10/30/15





Project: Dall Sheep Herd Assess
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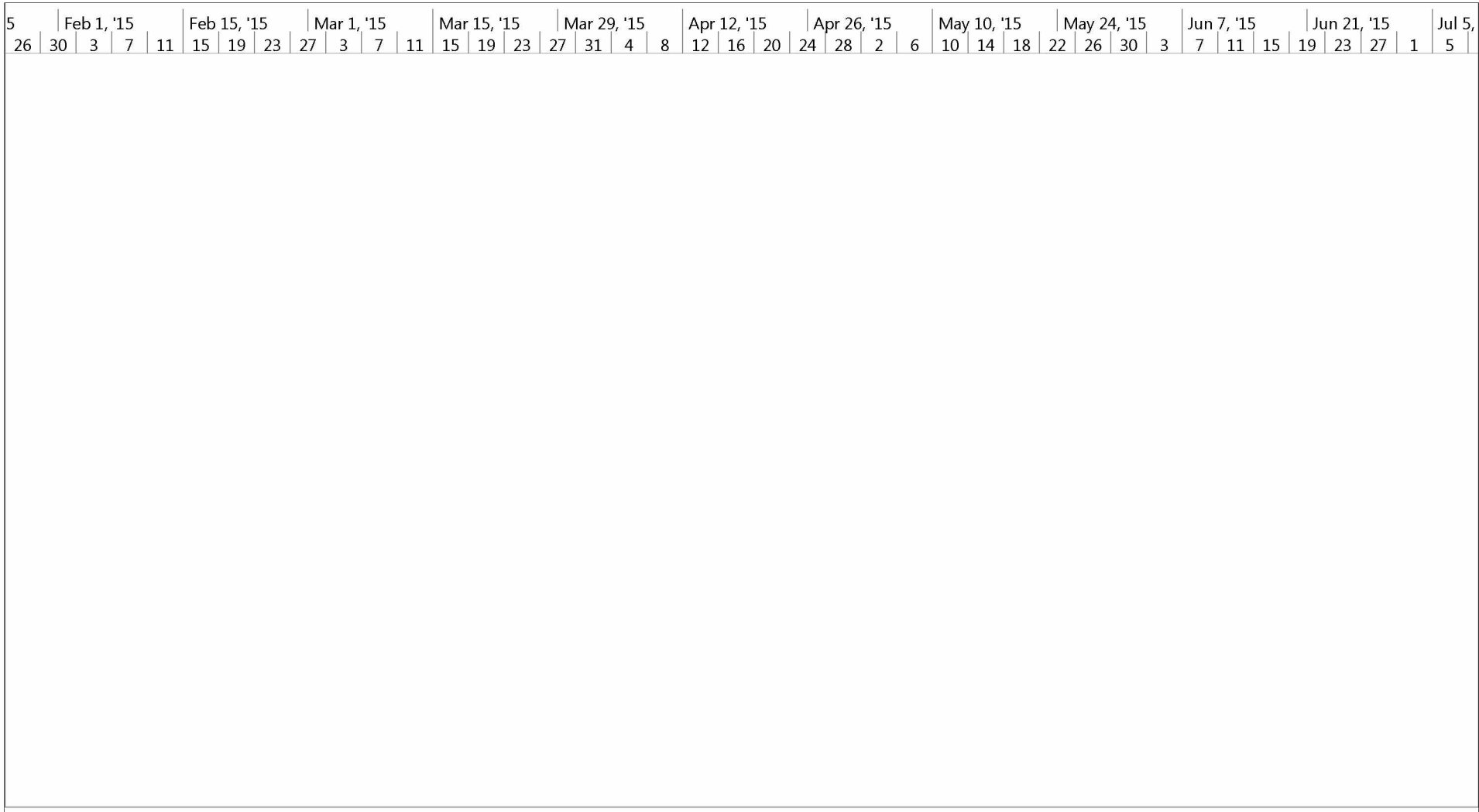

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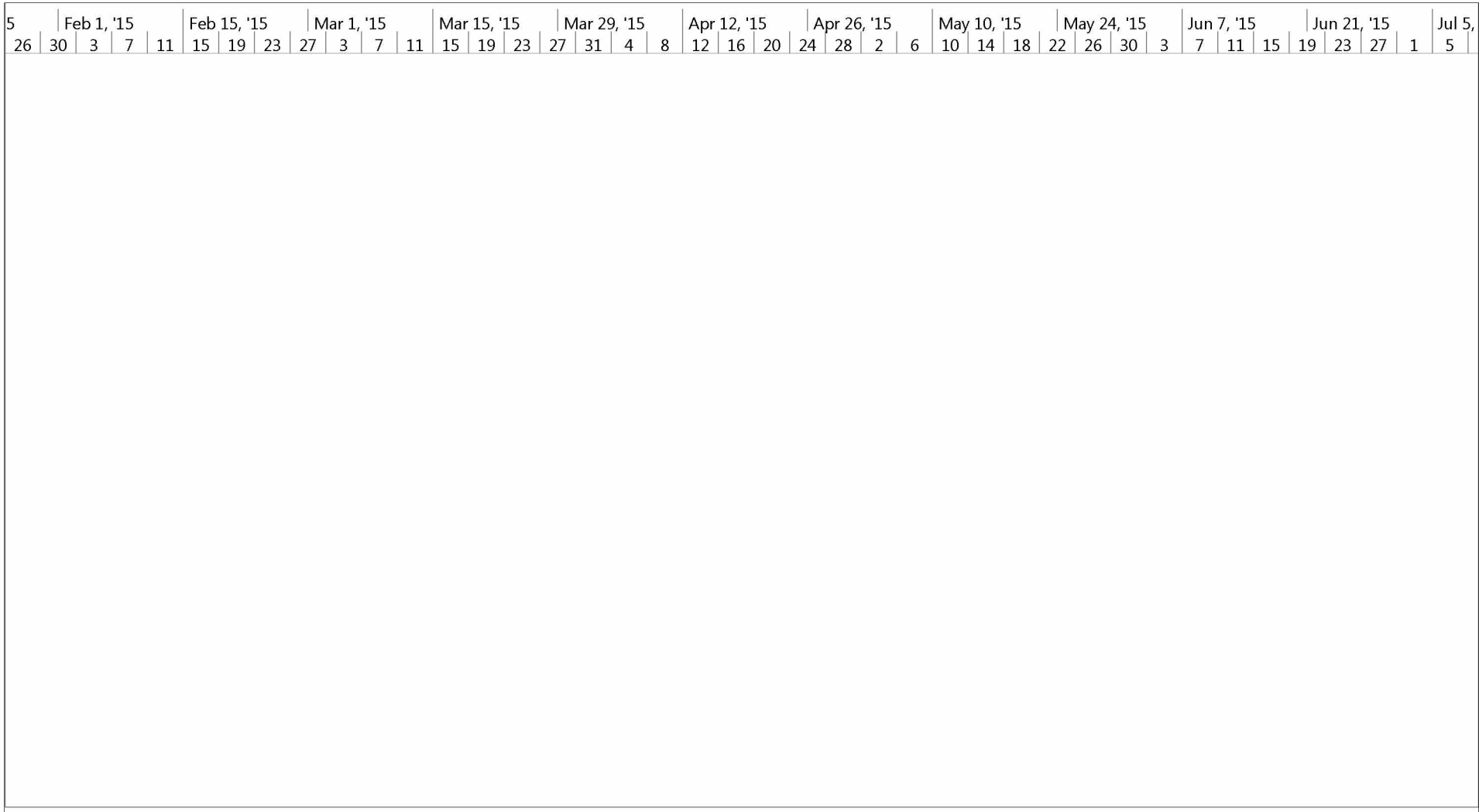

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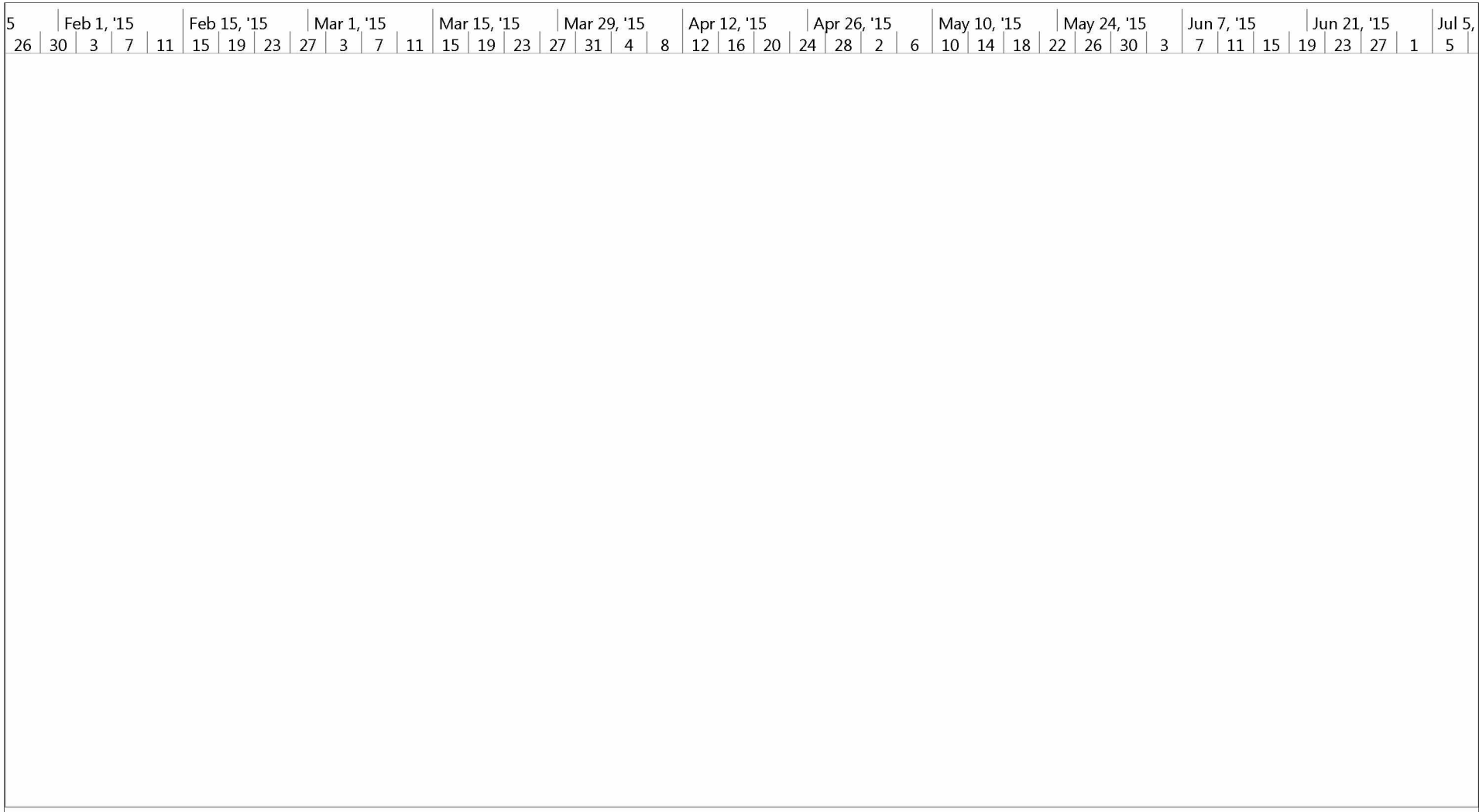

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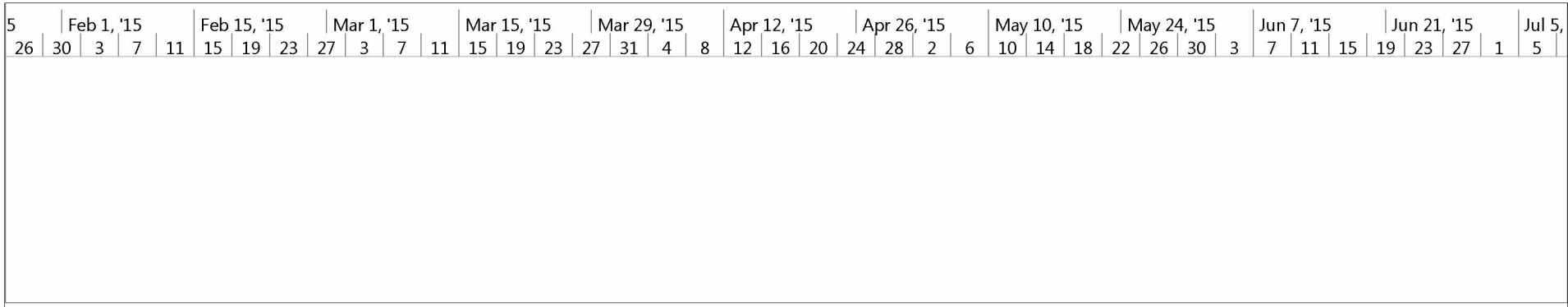

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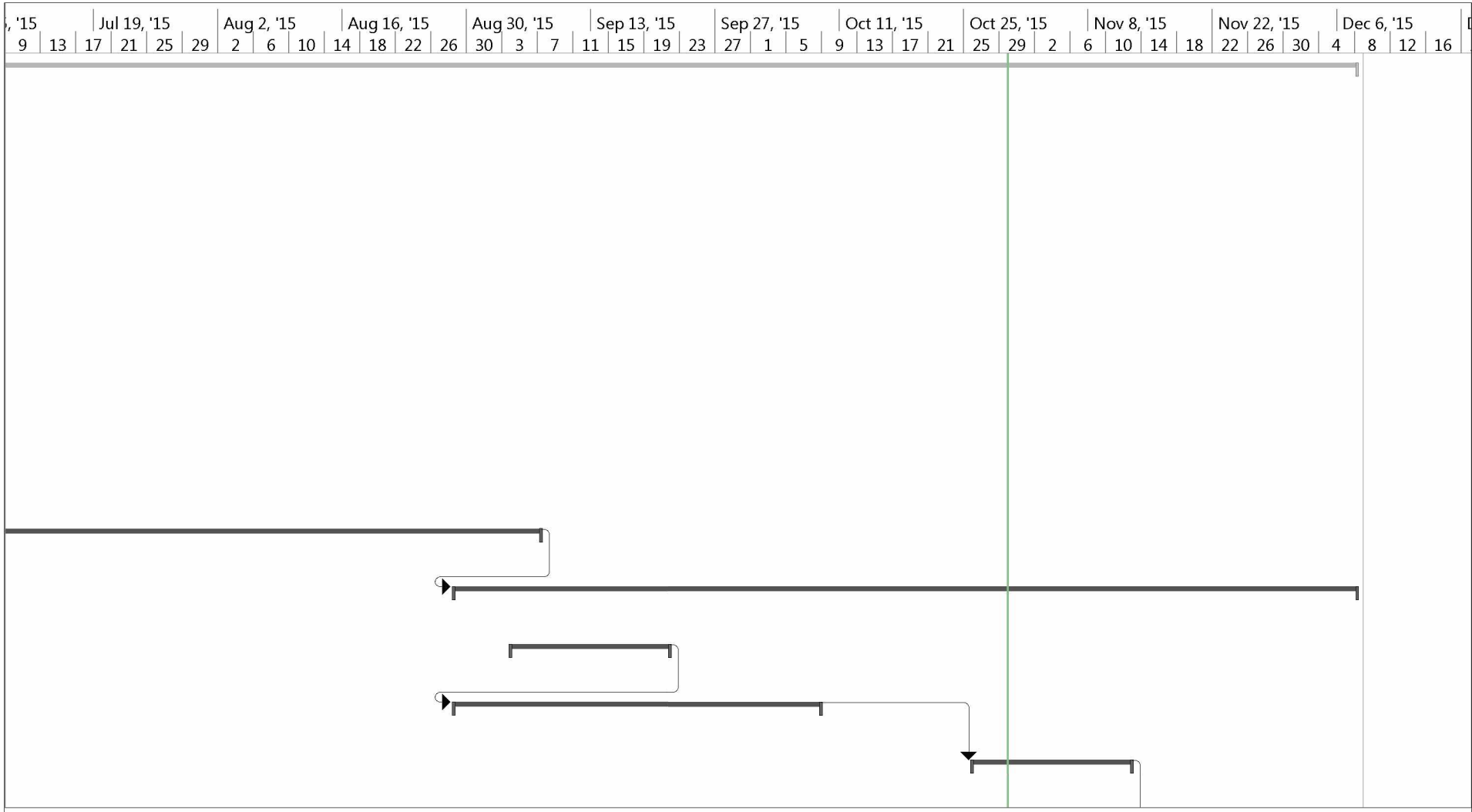

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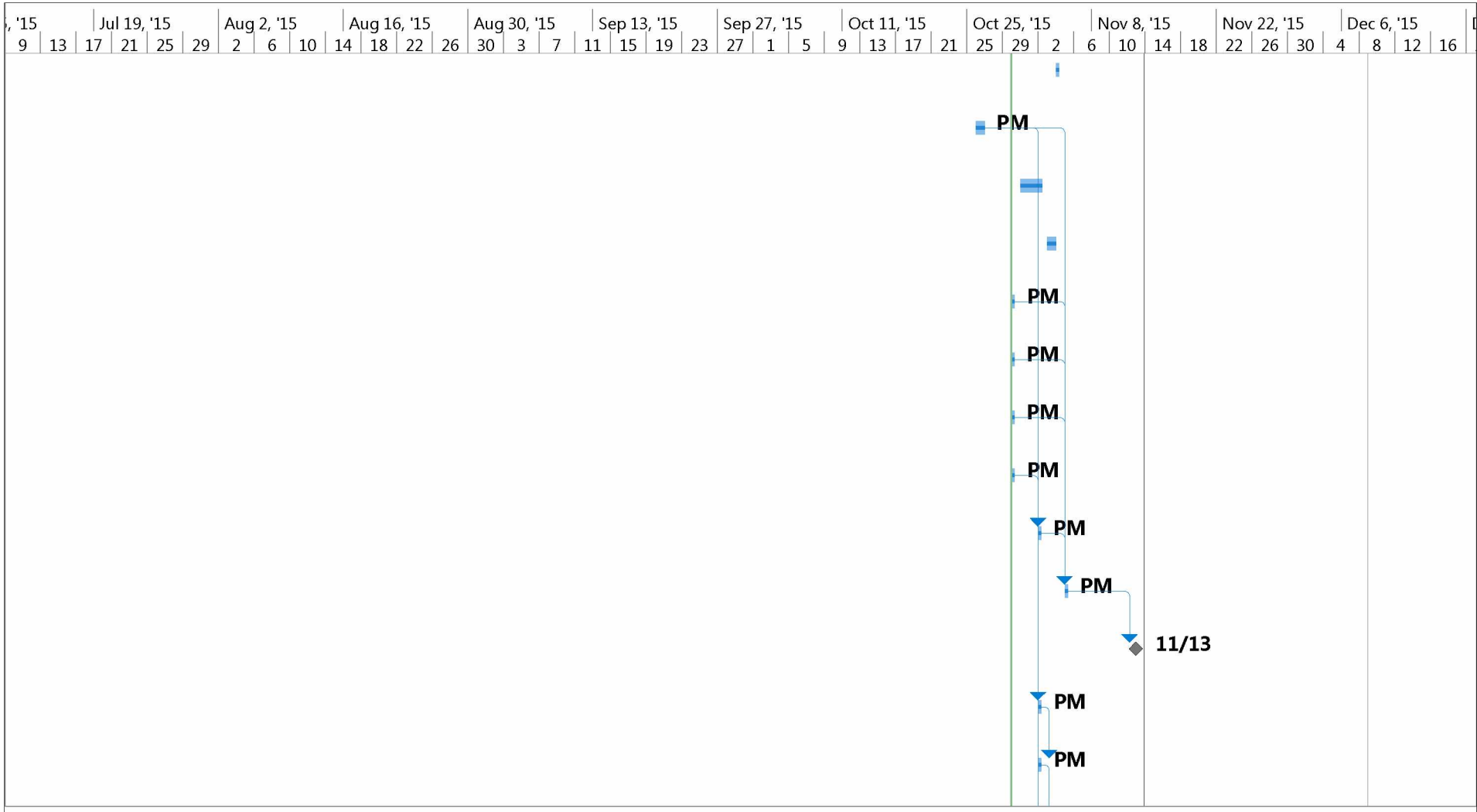

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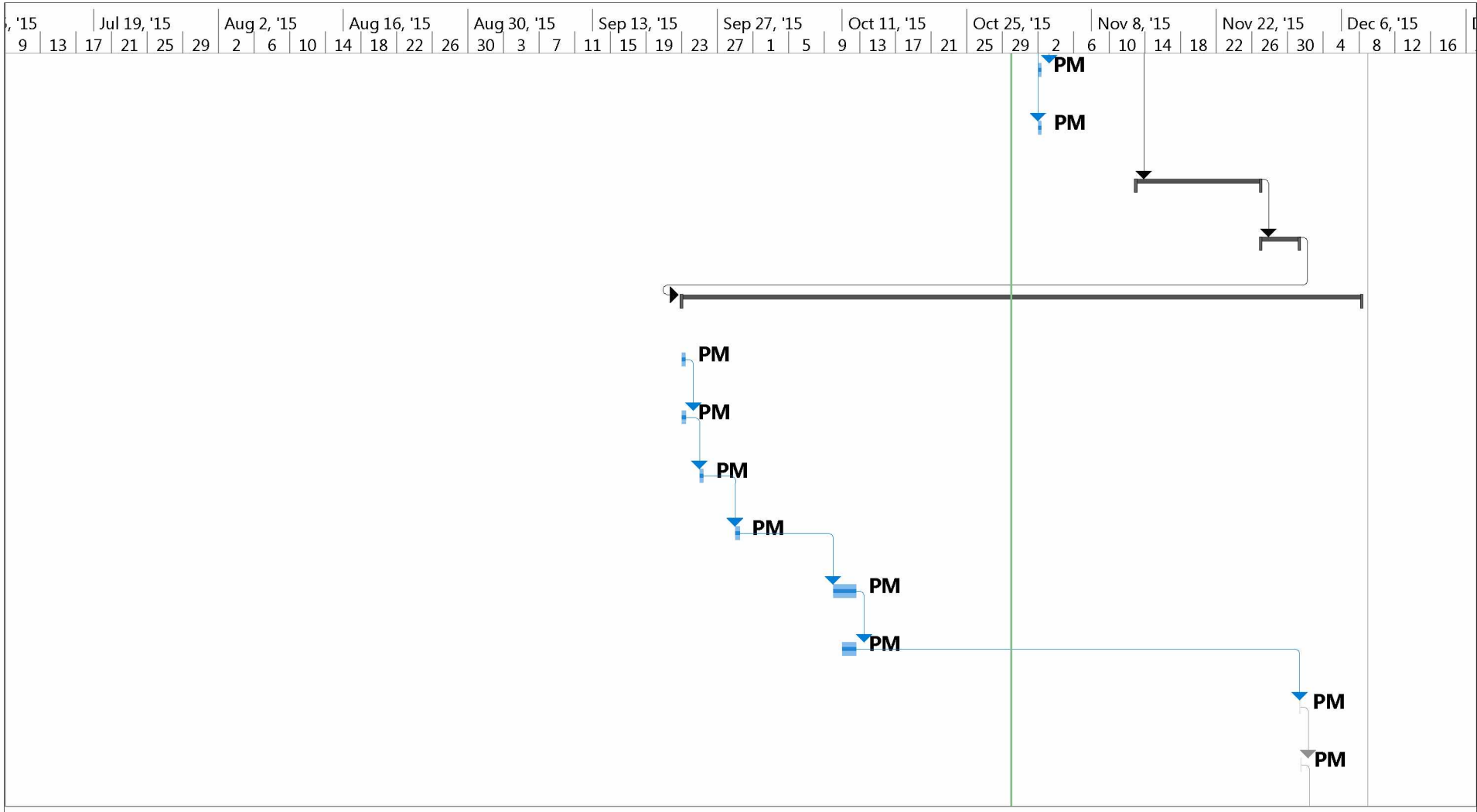

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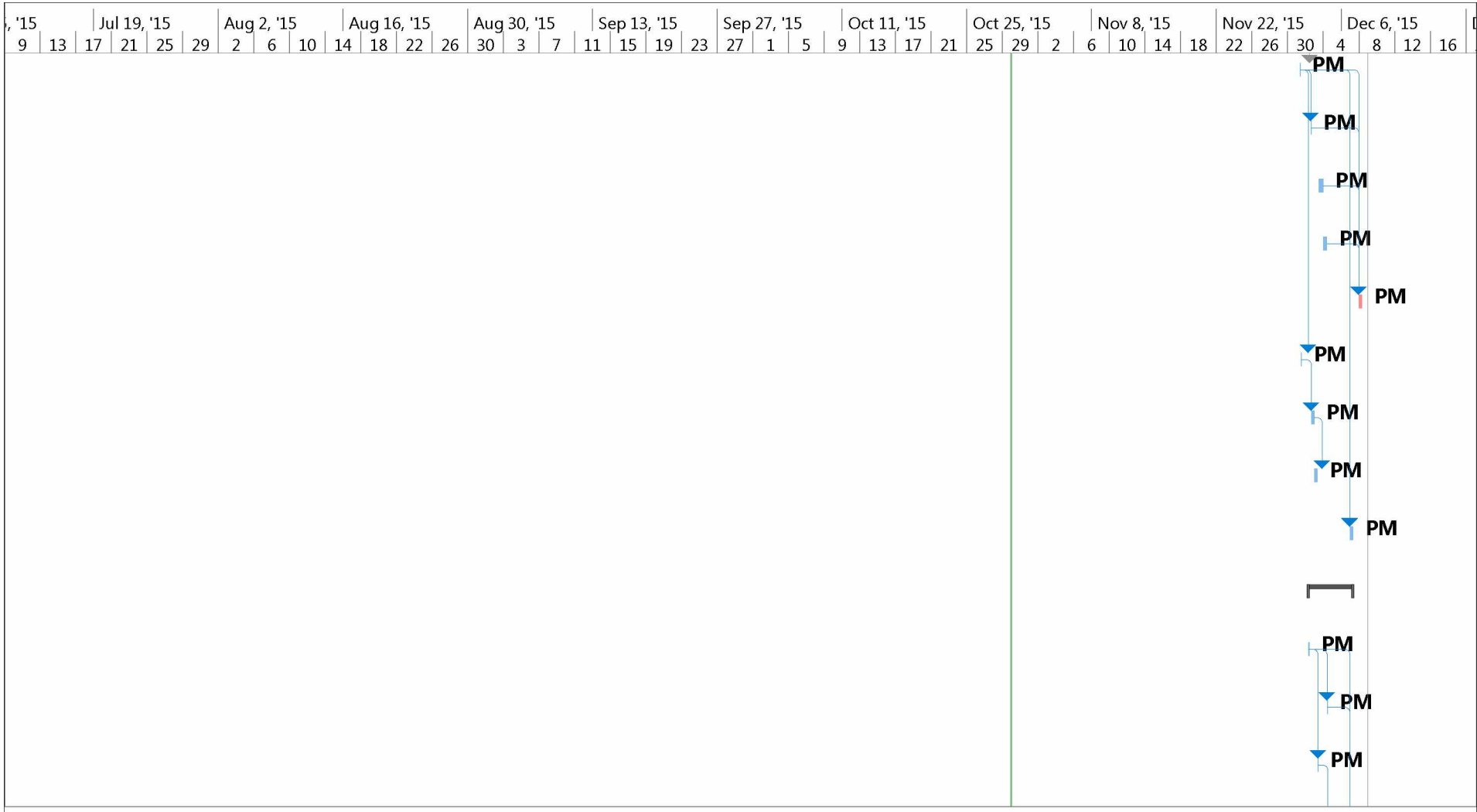

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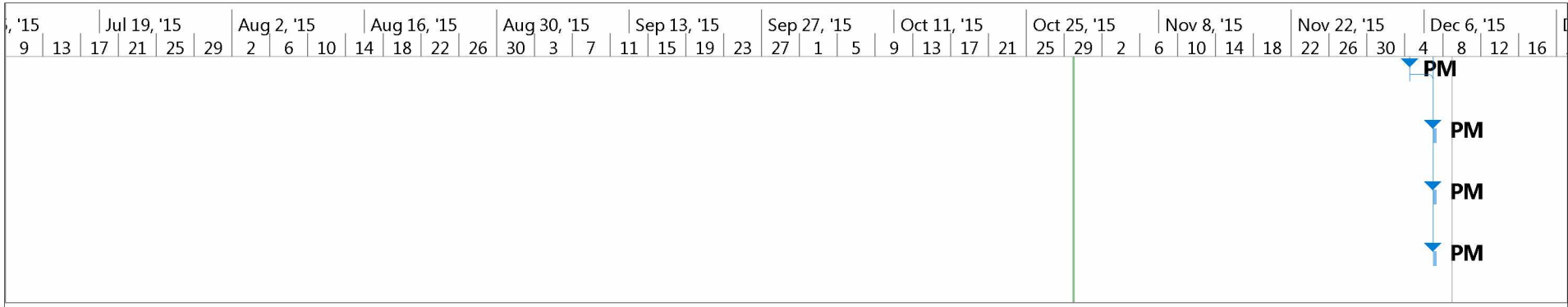

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Date	Risk Description		
	Cause	Risk	Effect
1-May	Project Sponsor could not incorporate myself into capture work schedule	#7 - Field research not completed	Requires all research to be conducted via literary review and recorded presentations. Tasks were inactivated
6-Sep	Project Manager did not complete all summer	#9 Scheduled work not completed due to risk #7 occuring	Scheduled summer research tasks were not completed. Tasks were inactivated.
4-Sep-15	Status report was not input into schedule nor was risk defined prior to occurring	#10 Status report submitted late	Report was submitted late causing stakeholders to question project performance
7-Oct-15	All work not scheduled	#8 Work completed that is not on schedule	Work was completed that was not on schedule and was required

Task Effected	Forcasted? (Y/N)	Forcasted Effect		
		Scope	Time	Other
3.1, 3.2, 3.3	Y	Reduced research scope		
3.8, 3.9, 3.10, 3.11, 3.12, 3.13	Y		required to be completed at later date	
4.1.1	N			
4.6.1-4.6.9	Y		Time spent completing work that was not initially scheduled	

Actual Effect		
Scope	Time	Other
Reduced research scope, forced literary research focus		
	required to be completed at later date	
	Was not on schedule. Cost .5 hour of unallocated time	

Notes/LL

Requirements Traceal				
Req #	Description	Source	Stakeholder Register Reference	Requirement Classification
1	References current best practice capture processes and guidelines	Project Sponsor	Project Sponsor	Functional
2	References WAFWA Bighorn Sheep Herd Health Monitoring Recommendations	Project Sponsor	Project Sponsor	Functional
3	Simple and succinct document	Project Sponsor	Project Sponsor	Functional
4	Hard copy furnished in binder along and cd including final document in adobe and modifiable format (word, excel, project)	Project Sponsor	Project Sponsor	Functional
5	PPM1A (PM686A)	PM686A Syllabus	Committee	Course
6	PPM2A (PM686A)	PM686A Syllabus	Committee	Course
7	PPM3A (PM686A)	PM686A Syllabus	Committee	Course
8	PPM4A (PM686A)	PM686A Syllabus	Committee	Course
9	PMP for deliverable (PM686A)	PM686A Syllabus	Committee	Course
10	Summary narrative (PM686A)	PM686A Syllabus	Committee	Course
11	Knowledge area narrative (PM686A)	PM686A Syllabus	Committee	Course
12	Final Presentation Slides (PM686A)	PM686A Syllabus	Committee	Course
13	PPM1B (PM686B)	PM686B Syllabus	Committee	Course
14	PPM2B (PM686B)	PM686B Syllabus	Committee	Course
15	PPM3B (PM686B)	PM686B Syllabus	Committee	Course
16	PPM4B (PM686B)	PM686B Syllabus	Committee	Course
17	Final Research Paper (PM686B)	PM686B Syllabus	Committee	Course
18	Summary lessons learned narrative (PM686B)	PM686B Syllabus	Committee	College
19	Knowledge area narrative (PM686B)	PM686B Syllabus	Committee	College

20	Final presentation slides (PM686B)	PM686B Syllabus	Committee	College
21	PM 686A Final Course Deliverables Submission	PM 686A Final Course Deliverables Submission	Committee	College

bility Matrix

Project Objective Reference	Priority (Low Med High)	Acceptance Criteria	Validation method	Owner	WBS Work Package Reference
Develop PMP	Med	Referennced in PMP	Sponsor Review	PM	4.1.2, 4.2.6
Develop PMP	Med	Referennced in PMP	Sponsor Review	PM	4.1.2, 4.2.6
Develop PMP	High	Upon review	Sponsor Review	PM	4.1.2, 4.2.6
Develop PMP	High	Upon review	Sponsor Review	PM	4.6.1
Complete PM686A	Med	Complete, timely	Committee Review	PM	2.1
Complete PM686A	Med	Complete, timely	Committee Review	PM	2.2
Complete PM686A	Med	Complete, timely	Committee Review	PM	2.3
Complete PM686A	Med	Complete, timely	Committee Review	PM	2.4
Complete PM686A	High	Complete, timely	Committee Review	PM	2.3.1, 2.4.6, 4.1.2
Complete PM686A	High	Complete, timely	Committee Review	PM	2.4.8
Complete PM686A	High	Complete, timely	Committee Review	PM	2.1.10, 2.2.12, 2.3.6, 2.4.4
Complete PM686A	High	Complete, timely	Committee Review	PM	2.4.7, 2.4.8
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.1
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.2
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.3
Complete PM686B	Med	Complete, timely	Committee Review	PM	4.4
Complete PM686B	High	Complete, timely	Committee Review	PM	4.4.2, 4.6
Complete PM686B	High	Complete, timely	Committee Review	PM	4.6.5
Complete PM686B	High	Complete, timely	Committee Review	PM	4.1.6, 4.2.9, 4.3.6, 4.4.4, 4.6.4

Complete PM686B	High	Complete, timely	Committee Review	PM	4.4.14.5.1,4.5.2
Complete PM686A	High	Requirement followed	Committee Review	PM	4.6

Stakeholder Register		PM Methodology applied to Dall's Sheep		
	Identification Information			
Internal Stakeholders	Organization	Position/Title	Location	Role
Vance Johnson	UAA	Student	Alaska	Project Manager
Roger Hull	UAA	Professor	Alaska	Committee Advisor
LuAnn Piccard	UAA	Professor	Alaska	Committee Member
Seong Dae Kim	UAA	Professor	Alaska	Committee Member
External Stakeholders				
Tom Lohuis	ADFG	Wildlife Biologist	Alaska	Project Sponsor
Area Biologists	ADFG	N/A	Alaska	Provide requirements
Alaska Board of Game	ADFG	N/A	Alaska	N/A
Wildlife Health Committee	Western Association of Fish and Wildlife Agencies	N/A	NW U.S.	N/A
Consumptive users	None	N/A	Alaska	N/A
Non -consumptive users	None	N/A	Alaska	N/A

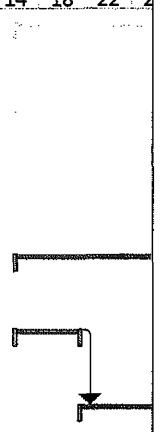
› Herd Health Assessments

	Assessment Information (Their project requirements and expectations)				
Contact Information	Major requirements (See RTM)	Measures of Success	Expectations	Primary Concerns	Other helpful info
	None			Meet Course and stakeholder requirements	Full time employment and student
	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20	0-100% grade scale	Exceed course requirements and excell in studies		
	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,21	0-100% grade scale	Exceed course requirements and excell in studies		
	5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,22	0-100% grade scale	Exceed course requirements and excell in studies		
	1,2,3,4	PMP is useful	Provide executable plan	Non-biology major efficiveness in research development	
	1,2,3,4				
N/A	None	None	None	None	None
N/A	None	None	None	None	None
N/A	None	None	None	None	None
N/A	None	None	None	None	None

Classification (Their relationship to and ability to impact project)				Communication (How they like to		
Current Level of Support	Desired level of support	Key influencers / relationships	Other helpful info	Mode	Frequency	Level of detail
High	High	Fiance'	Full time employment and student	Face to Face, Phone, Email, Blackboard	Any time	Dependent on stakeholder
Med	Med			Face to Face, Phone, Email, Blackboard	Minimum bi-weekly	Thorough
Med	Med			Face to Face, Phone, Email, Blackboard	Minimum bi-weekly	Thorough
Med	Med			Face to Face, Phone, Email, Blackboard	Minimum bi-weekly	Thorough
High	High			Face to Face, Phone, Email	Minimum bi-weekly	Moderate
Low	Low			Interview	When required	Minimum
None	None		Pass regulation	Through ADFG		
None	None			N/A	N/A	N/A
None	None			Through ADFG	Per ADFG	Minimum
None	None			Through ADFG	Per ADFG	Minimum

be communicated with)	
Format	Other helpful info
Any	
Phone, face to face, email	Set up meeting dependent on help required
Phone or face to face meeting	One day prior send meeting topics
Email	Include PPM progress, comments, issues, help required
Phone, face to face, email	Does not require updates, contact any time help is required
Phone, face to face, email	
ADFG internal reports or statements	
N/A	Non standing board, can not contact
Announcements	Unorganized group, can not single out
Announcements	Unorganized group, can not single out

ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
0		0	**Dall Sheep Herd Assessment PMP**	1873 hrs	318 hrs	Fri 1/16/15	Tue 12/8/15	
1		1	**Project Management**	15 hrs	13.23 hrs	Wed 1/28/15	Fri 1/30/15	
2		1.1	**Topic Selection**	15 hrs	13.23 hrs	Wed 1/28/15	Fri 1/30/15	
8		2	**Spring semester**	545 hrs	148.68 hrs	Fri 1/16/15	Mon 4/20/15	
9		2.1	**PPM1 A**	29 hrs	26.5 hrs	Fri 1/16/15	Wed 1/21/15	
20		2.2	**PPM2 A**	203 hrs	42.18 hrs	Wed 1/21/15	Wed 2/25/15	9
37		2.3	**PPM3 A**	216 hrs	46.97 hrs	Sat 2/7/15	Wed 3/18/15	20
59		2.4	**PPM4 A**	201 hrs	33.03 hrs	Wed 3/18/15	Mon 4/20/15	37
74		3	**Field research**	483 hrs	10 hrs	Sat 6/13/15	Mon 9/7/15	8
88		4	**Fall Semester**	572 hrs	138.07 hrs	Fri 8/28/15	Tue 12/8/15	74
89		4.1	**PPM1 B**	96 hrs	28.5 hrs	Fri 9/4/15	Mon 9/21/15	
110		4.2	**PPM2 B**	235 hrs	24.78 hrs	Fri 8/28/15	Thu 10/8/15	89
132		4.3	**PPM3 B**	112 hrs	19.53 hrs	Mon 10/26/15	Fri 11/13/15	110



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ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
133		4.3.1	Status Report	1 hr	0.5 hrs	Wed 11/4/15	Wed 11/4/15	
134		4.3.2	Draft research paper setting 1	1 day	4 hrs	Mon 10/26/15	Mon 10/26/15	
135		4.3.3	Draft research paper setting 2	3 hrs	3 hrs	Sat 10/31/15	Mon 11/2/15	
136		4.3.4	Draft research paper setting 3	8 hrs	4 hrs	Tue 11/3/15	Tue 11/3/15	
137		4.3.5	Revised abstract	0.13 days	1.03 hrs	Fri 10/30/15	Fri 10/30/15	
138		4.3.6	Research results and analysis	0.06 days	0.5 hrs	Fri 10/30/15	Fri 10/30/15	
139		4.3.7	Prelim conclusions/deliver	0.06 days	0.5 hrs	Fri 10/30/15	Fri 10/30/15	
140		4.3.8	Update schedule	0.13 days	1 hr	Fri 10/30/15	Fri 10/30/15	
141		4.3.9	Knowledge area update	0.5 hrs	0.5 hrs	Mon 11/2/15	Mon 11/2/15	140
142		4.3.10	Submit PPM3 B	0.5 hrs	0.5 hrs	Thu 11/5/15	Thu 11/5/15	134,137,138,139,1
143		4.3.11	Go/No-Go Decision #2B	0 days	0 hrs	Fri 11/13/15	Fri 11/13/15	142
144		4.3.12	Instructor Meeting	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	134
145		4.3.13	Instructor Meeting	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	144

Jan 4, '15 | Jan 18, '15
6 10 14 18 22 2

Project: Dall Sheep Herd Assess
Date: Fri 10/30/15

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146		4.3.14	Instructor Meeting	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	145
147		4.3.15	Sponsor Meeting	0.13 days	1 hr	Mon 11/2/15	Mon 11/2/15	134
148		**4.4**	**PPM4 B**	**80 hrs**	**29 hrs**	**Fri 11/13/15**	**Fri 11/27/15**	**132**
160		**4.5**	**Oral Presentation**	**17 hrs**	**7 hrs**	**Fri 11/27/15**	**Tue 12/1/15**	**148**
163		**4.6**	**Final Report**	**433 hrs**	**29.25 hrs**	**Wed 9/23/15**	**Tue 12/8/15**	**160**
164		4.6.1	Build report outline	2 hrs	0.25 hrs	Wed 9/23/15	Wed 9/23/15	
165		4.6.2	Draft Report	3 hrs	2 hrs	Wed 9/23/15	Wed 9/23/15	164
166		4.6.3	Draft Report	2 hrs	2 hrs	Fri 9/25/15	Fri 9/25/15	165
167		4.6.4	Draft Report	4 hrs	2 hrs	Tue 9/29/15	Tue 9/29/15	166
168		4.6.5	Draft Report	5 hrs	5 hrs	Sat 10/10/15	Mon 10/12/15	167
169		4.6.6	Draft Report	5 hrs	5 hrs	Sun 10/11/15	Mon 10/12/15	168
170								
171								

Jan 4, '15 | Jan 18, '15
6 10 14 18 22 2

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Project Summary	Manual Summary	Critical Split
Inactive Task	Start-only	Progress
Inactive Milestone	Finish-only	Manual Progress

ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
172		4.6.9	Prepare final report	0.13 days	1 hr	Tue 12/1/15	Tue 12/1/15	171
173		4.6.10	Print report docs	0.13 days	1 hr	Wed 12/2/15	Wed 12/2/15	172
174		4.6.11	Prepare summary narrative	0.5 days	4 hrs	Thu 12/3/15	Thu 12/3/15	
175		4.6.12	Knowledge area narrative	0.25 days	2 hrs	Fri 12/4/15	Fri 12/4/15	
176		4.6.13	Submit Final Report	0.13 days	1 hr	Tue 12/8/15	Tue 12/8/15	175,174,173,172
177		4.6.14	Instructor Meeting 2	0.13 days	1 hr	Tue 12/1/15	Tue 12/1/15	172
178		4.6.15	Instructor Meeting 3	0.13 days	1 hr	Wed 12/2/15	Wed 12/2/15	177
179		4.6.16	Instructor Meeting 4	0.13 days	1 hr	Thu 12/3/15	Thu 12/3/15	178
180		4.6.17	Sponsor Meeting	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	172
181		**5**	**Project Closeout**	**24 hrs**	**8 hrs**	**Wed 12/2/15**	**Mon 12/7/15**	**162**
182		5.1	Complete 686B presentation	0.13 days	1 hr	Wed 12/2/15	Wed 12/2/15	
183		5.2	Compile/archive docs	0.25 days	2 hrs	Fri 12/4/15	Fri 12/4/15	182
184		5.3	Instructor Meeting 1	0.13 days	1 hr	Thu 12/3/15	Thu 12/3/15	182

Project: Dall Sheep Herd Assess
Date: Fri 10/30/15

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ID	Task Mode	WBS	Task Name	Duration	Work	Start	Finish	Predecessors
185		5.4	Instructor Meeting 2	0.13 days	1 hr	Fri 12/4/15	Fri 12/4/15	184
186		5.5	Instructor Meeting 3	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	185
187		5.6	Sponsor Meeting	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	182
188		5.7	Submit PMP to ADFG	0.13 days	1 hr	Mon 12/7/15	Mon 12/7/15	183

Jan 4, '15 6 10 14 Jan 18, '15 18 22 2

Project: Dall Sheep Herd Assess
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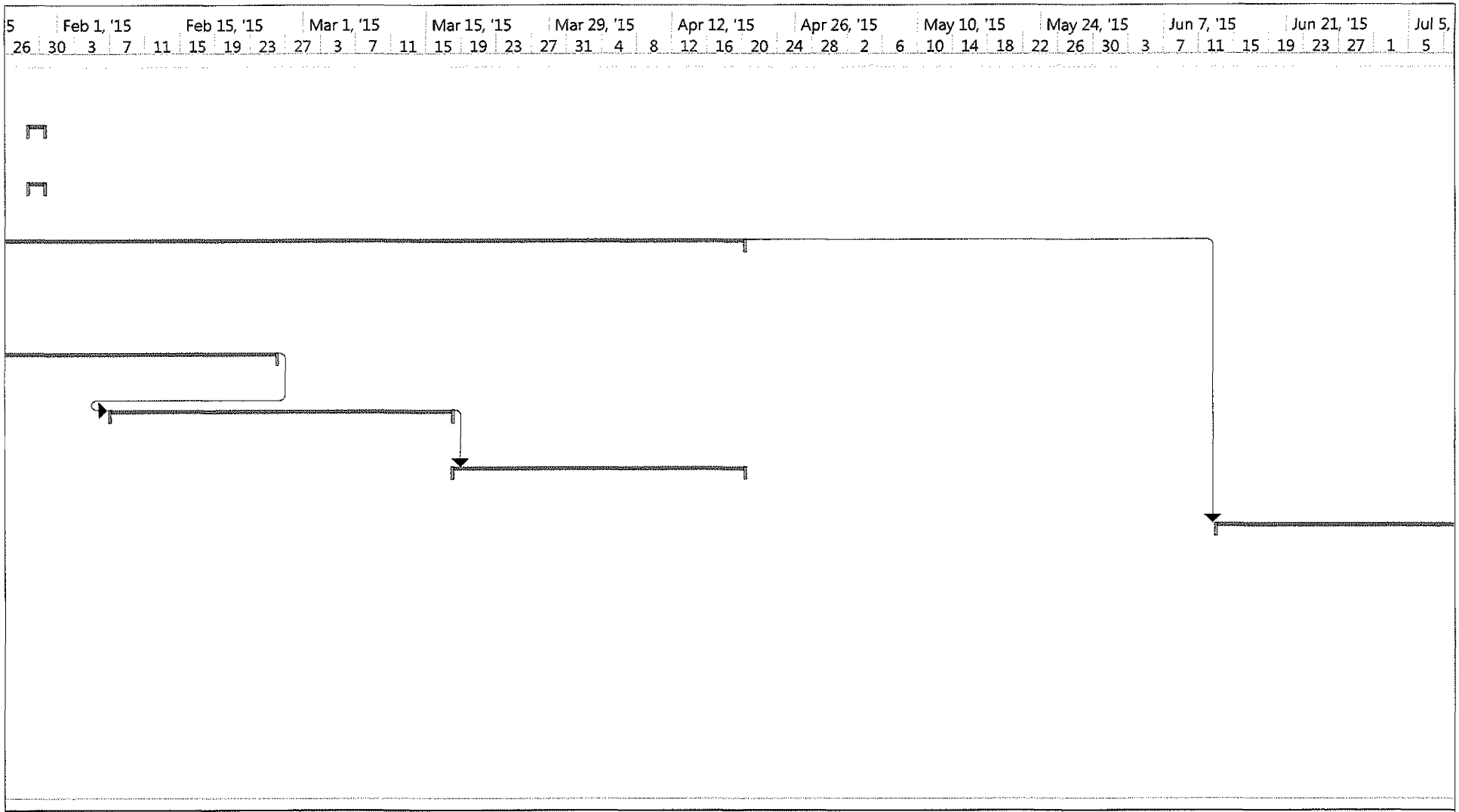

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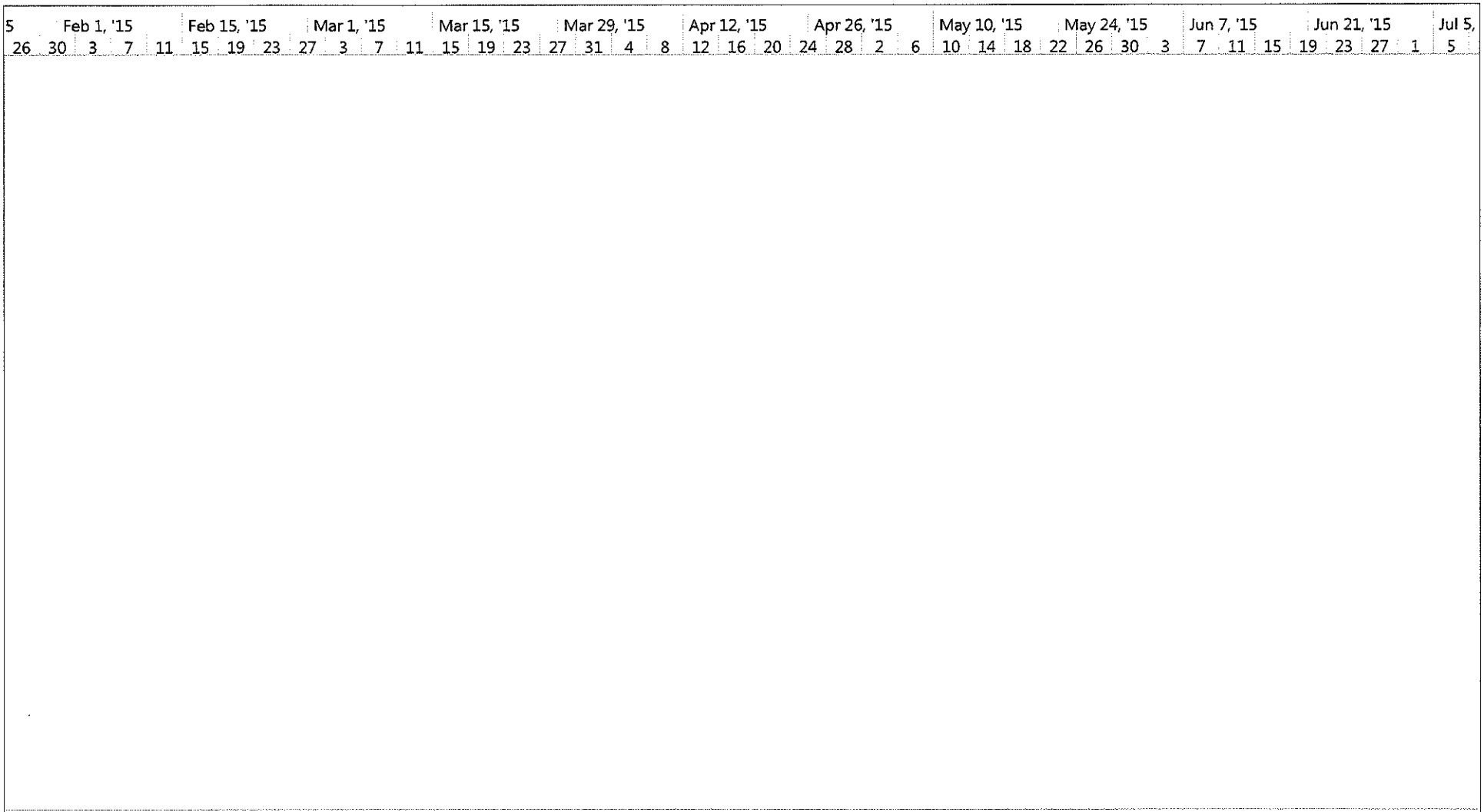

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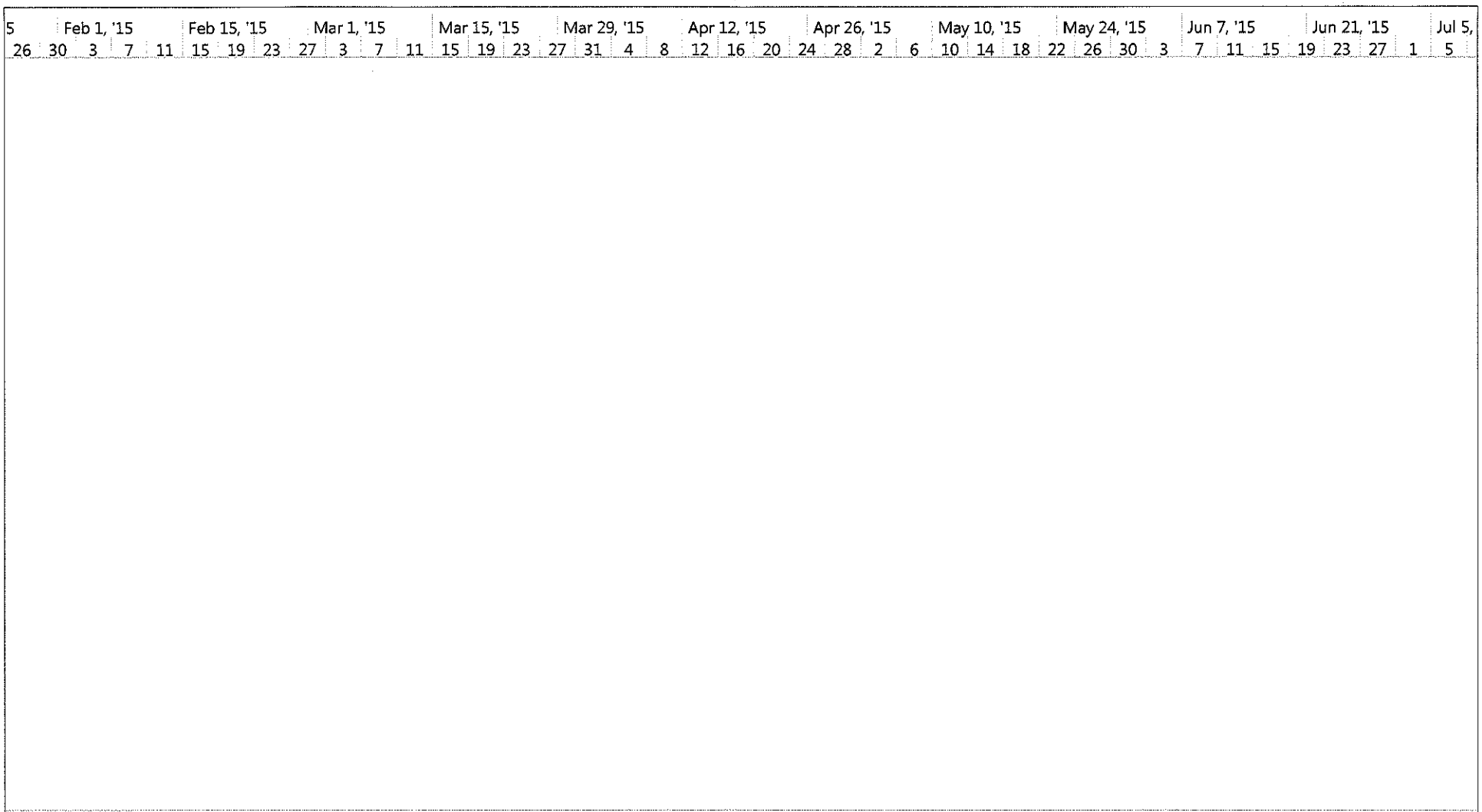

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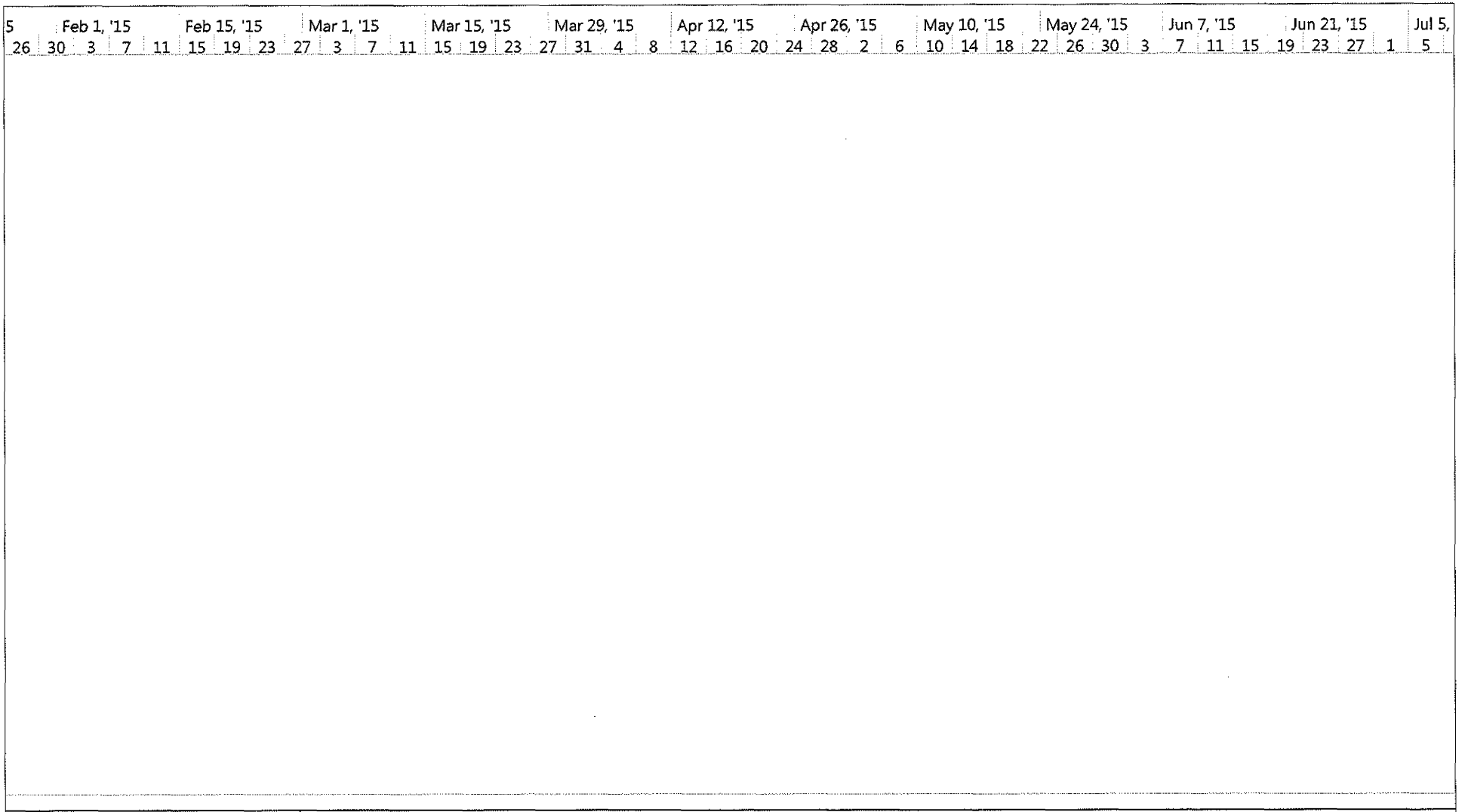

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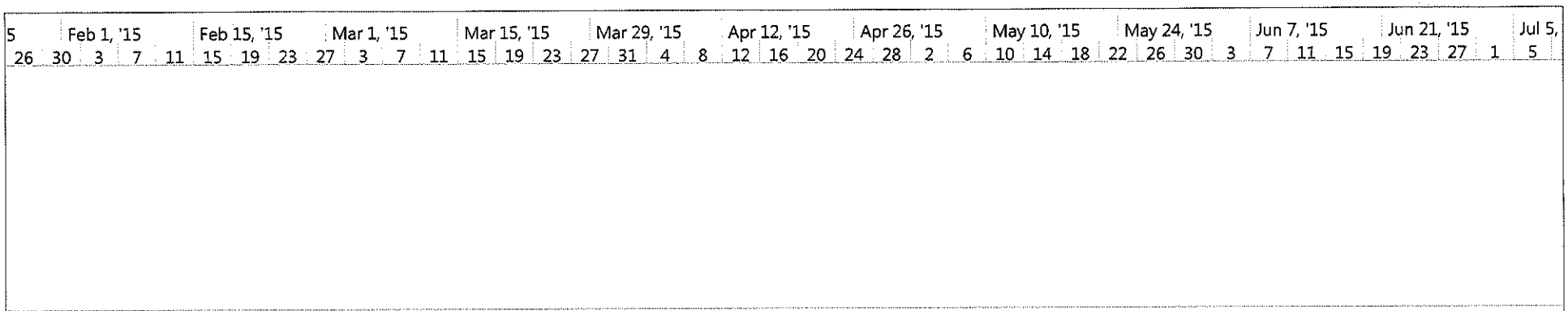

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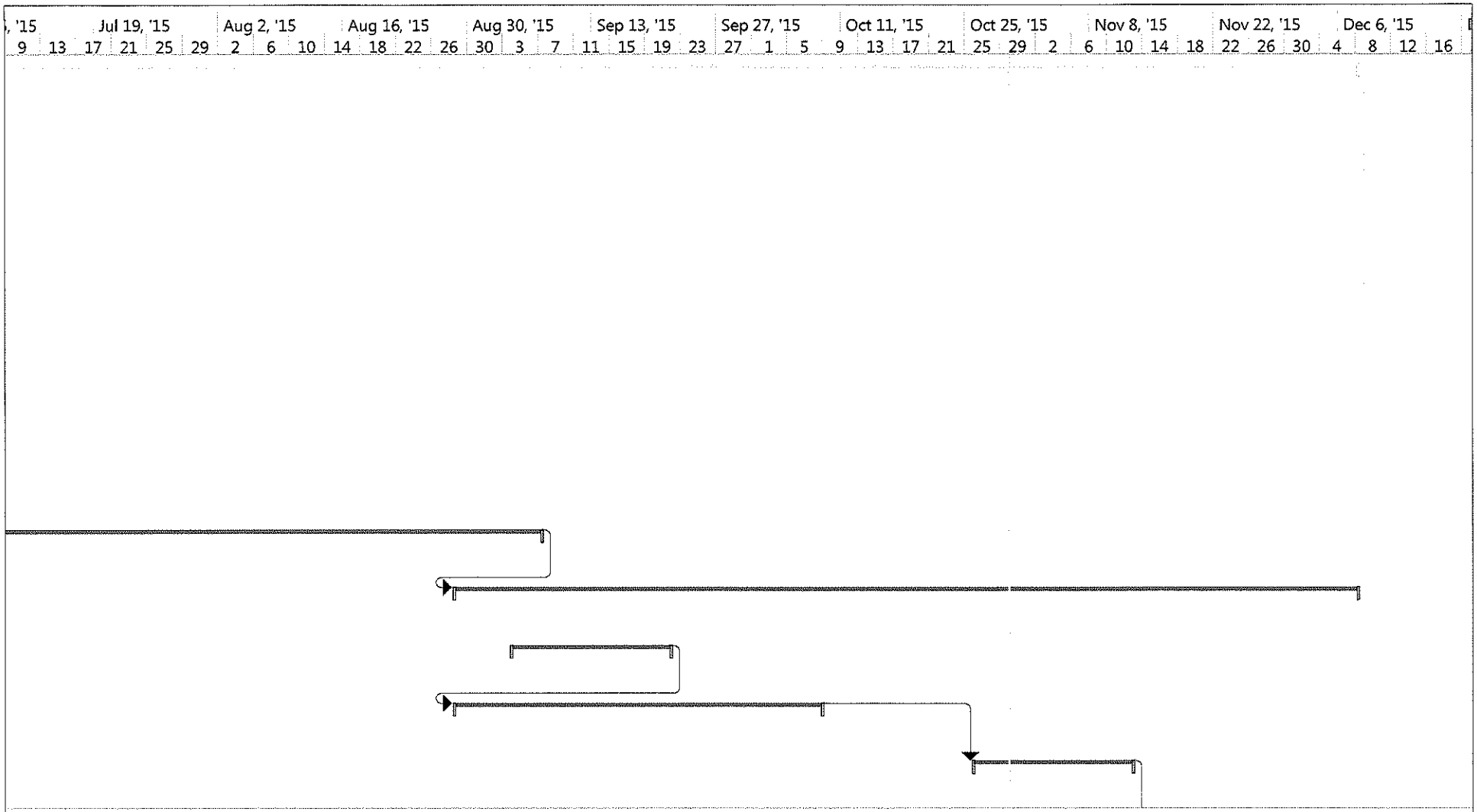

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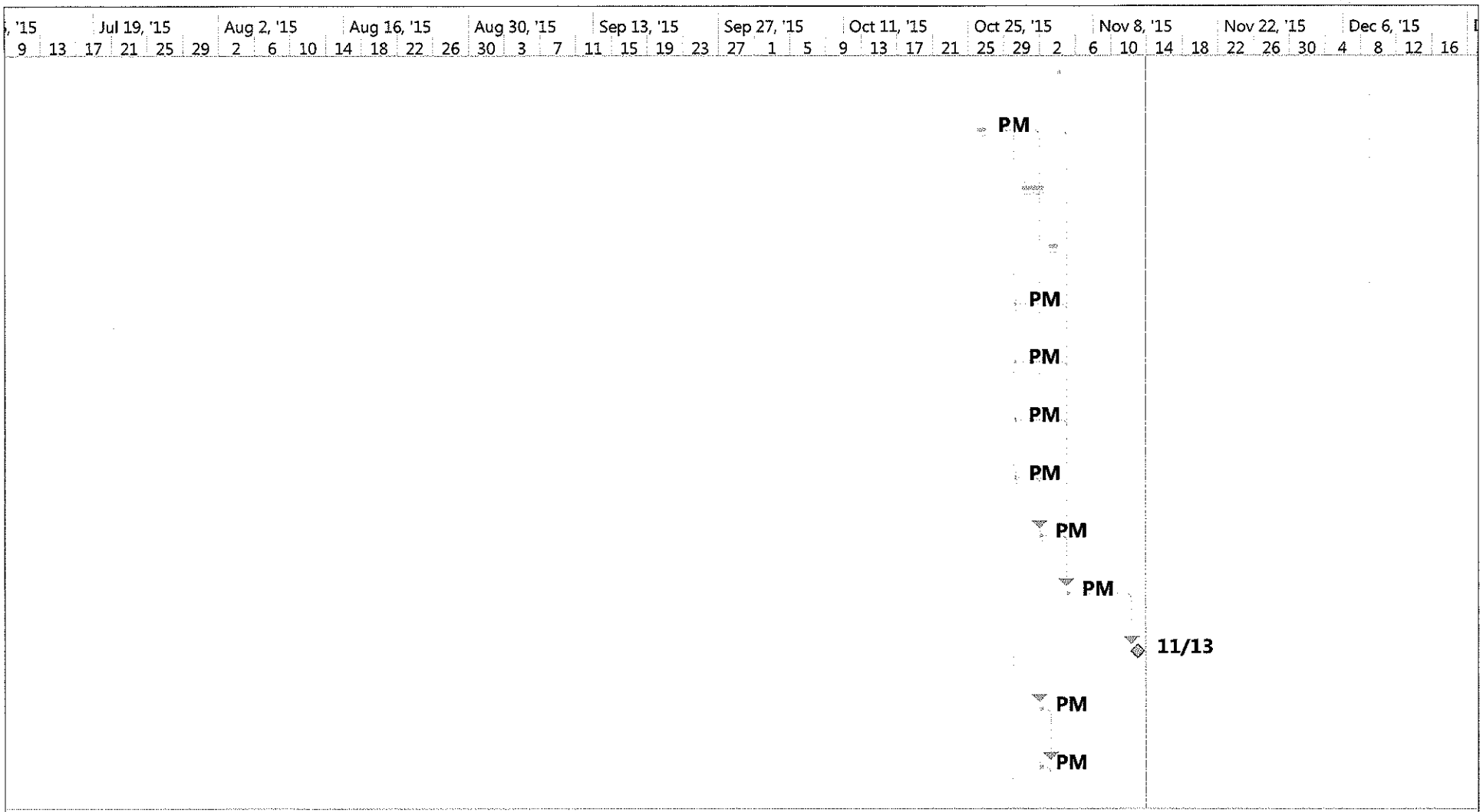

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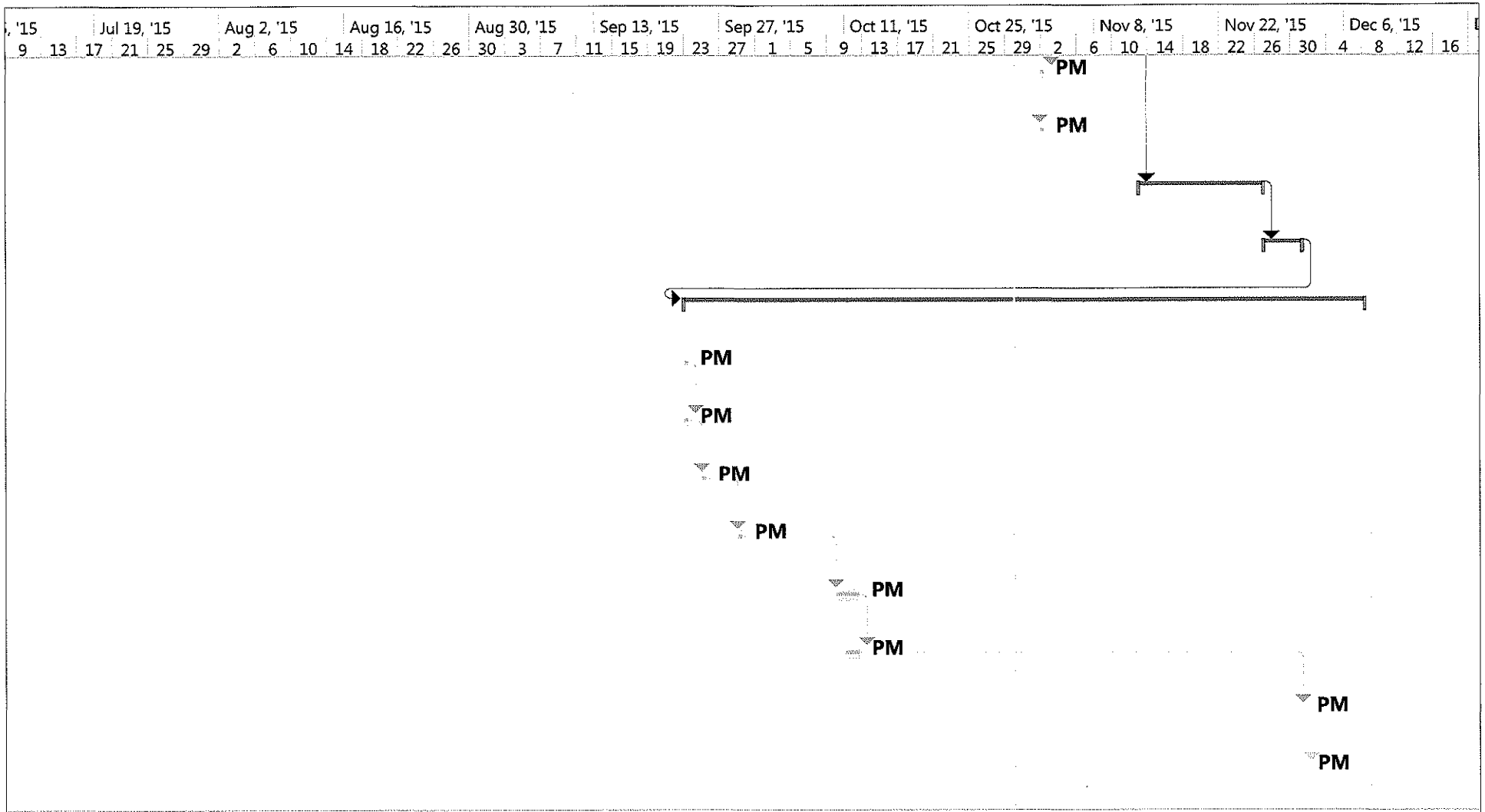

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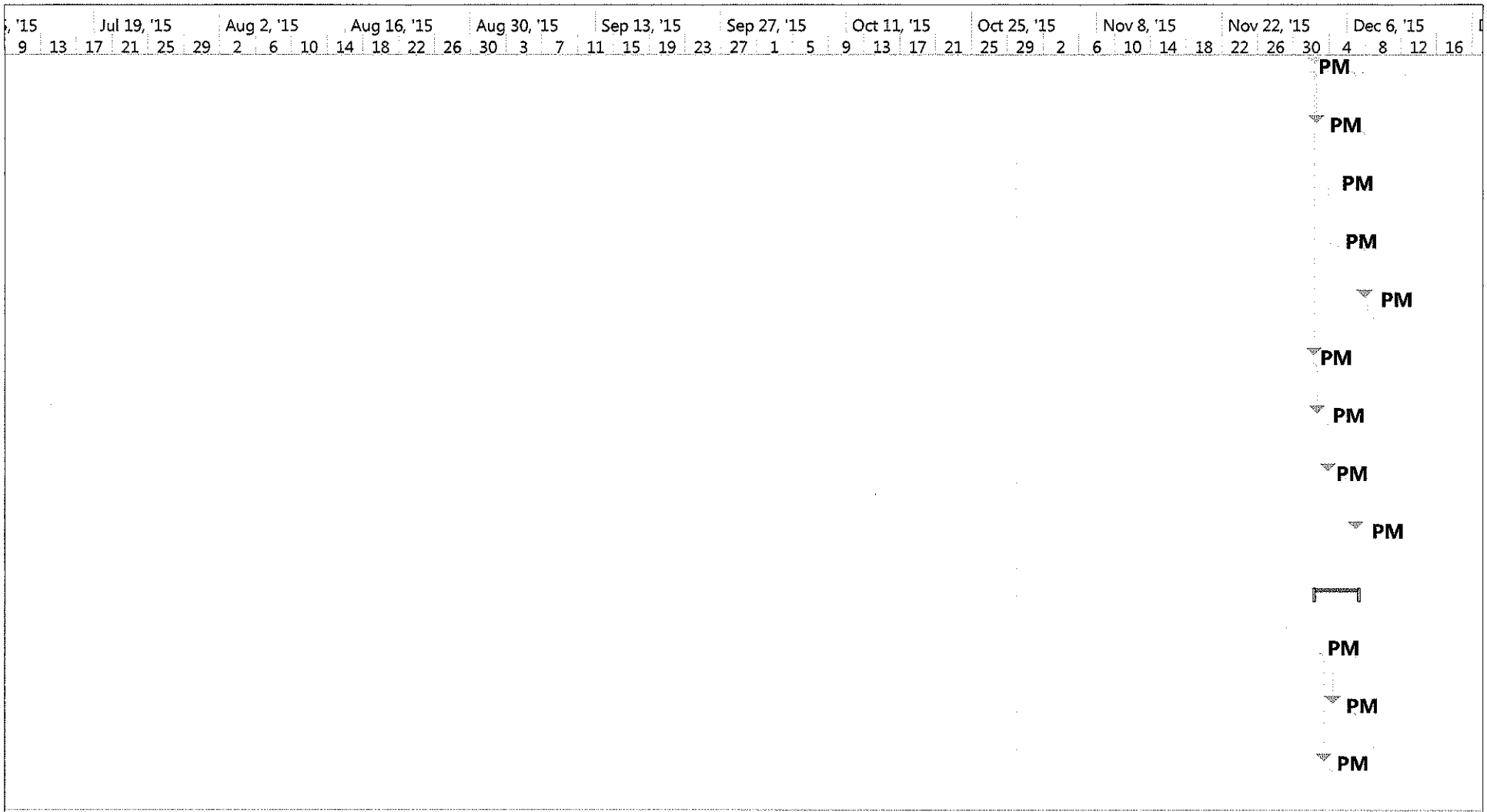

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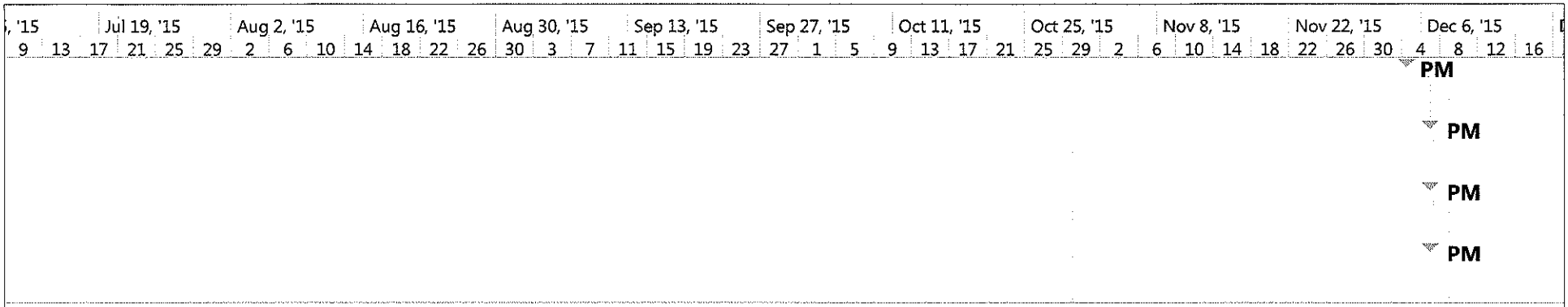

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Date	Risk Description			Task Effected	Forcasted? (Y/N)	Forcasted Effect			Actual Effect		
	Cause	Risk	Effect			Scope	Time	Other	Scope	Time	Other
1-May	Project Sponsor could not incorporate myself into capture work schedule	#7 - Field research not completed	Requires all research to be conducted via literary review and recorded presentations. Tasks were inactivated	3.1, 3.2, 3.3	Y	Reduced research scope			Reduced research scope, forced literary research focus		
6-Sep	Project Manager did not complete all summer	#9 Scheduled work not completed due to risk #7 occuring	Scheduled summer research tasks were not completed. Tasks were inactivated.	3.8, 3.9, 3.10, 3.11, 3.12, 3.13	Y		required to be completed at later date			required to be completed at later date	
4-Sep-15	Status report was not input into schedule nor was risk defined prior to occurring	#10 Status report submitted late	Report was submitted late causing stakeholders to question project performance	4.1.1	N					Was not on schedule. Cost .5 hour of unallocated time	
7-Oct-15	All work not scheduled	#8 Work completed that is not on schedule	Work was completed that was not on schedule and was required	4.6.1-4.6.9	Y		Time spent completing work that was not initially scheduled				

Project Charter

Project Name: Project Management Methodology applied to Dall's Sheep Herd Health Assessments

Project Manager: Jeffrey Vance Johnson, UAA, MSPM Student

Project Sponsor: Thomas Lohuis, ADFG, Wildlife Biologist

Project Committee: Roger Hull, UAA, PM Dept. Instructor
LuAnn Piccard, PM Dept. Instructor
Seong Dae Kim, PM Dept. Instructor

Prepared By: Jeffrey Vance Johnson

Project Charter Version Control

Version	Date	Description
1	17 Jan 15	Original
2	01 Feb 15	Minor clarification modifications to background and scope

Description

Situation/Problem/Opportunity

Bighorn sheep (*Ovis canadensis*) have experienced all age die offs since the 1900's. These outbreaks have caused as much as 80 and 90 percent mortality of their population and have compromised reproduction affecting the herd population for extended periods of time. Though Alaska has not experienced an all aged, non-localized die off of this magnitude in their thin horn dall's sheep (ovis dalli) population, the Alaska Department of Fish and Game (ADFG) will conduct a health assessment to develop a baseline. This will determine what disease is currently in the population and if an all age die off did occur, we would be able to refer to the data collected to determine if the introduction to the population was indigenous or foreign.

Scope

The scope of this project is to provide a complete project management methodology for ADFG to implement their *Dall's Sheep Herd Assessment Project*. This

methodology will include a project management plan (PMP) including all sections and background research required to complete the plan. This plan will provide one year's worth of operations so it may be easily applied and modified for many years in the future there are no funds required for the project as all hours are volunteer hours.

ADFG's Sheep Herd Health Assessment project is to conduct a study to systematically screen for infectious disease that will span 3-7 years and multiple mountain ranges with an initial annual budget of approximately $50,000. Each year between 01 March to 10 April there 30-40 Dall's Sheep will be captured for blood draw and swabbing samples followed by lab analysis. This work will be documented in an initial and final report. Should there be a significant finding during the project, a decision point will occur to determine if the project will continue as planned or to continue modify the plan to research the finding.

The official project will start with approval of the project charter from the UAA project committee.

The official project completion will occur with the delivery of the project management completed plan to Tom Lohuis at ADFG.

Objectives

The objectives of the Dall's Sheep Herd Health Asessment PMP are:

- Develop a project management plan for ADFG to execute their project
- Conduct research in order to write such a plan

Funding Authority

This project will be completed by means of a volunteer staff with limited time. There is no budget allocated to this project.

Critical Success Factors

The Dall's Sheep Herd Health Monitoring Project will be a success if the following are accomplished:

- Plan is practical for ADFG to operate from
- Plan is realistic to be used as a model for future plans
- Plan expands on current processes with application of project management principles
- Plan is completed in timeline in conjunction with PM686A

Milestones

- Project initiation - Signature of project charter by all parties - 30 January 15
- Go/No-Go decision point 1 - 18 Mar 2015
- Go/No-Go decision point 2 (Project Execution approval) - 15 April 2015
- Project management plan delivered to ADFG - Dec 2015

Exclusions

- Implementation and execution of project management plan

Assumptions

- ADFG will provide accessibility to information required to conduct research and write the plan
- ADFG will accept completed plan

Constraints

- Project Manager has a full time job therefore limiting time available
- All resources are limited to volunteers
- There are no funds available for project funding
- Project must follow PM686A and PM686B timeline provided in syllabus

Risks and Opportunities

Risks:

- weather does not allow capture work to be completed that year

Opportunities:

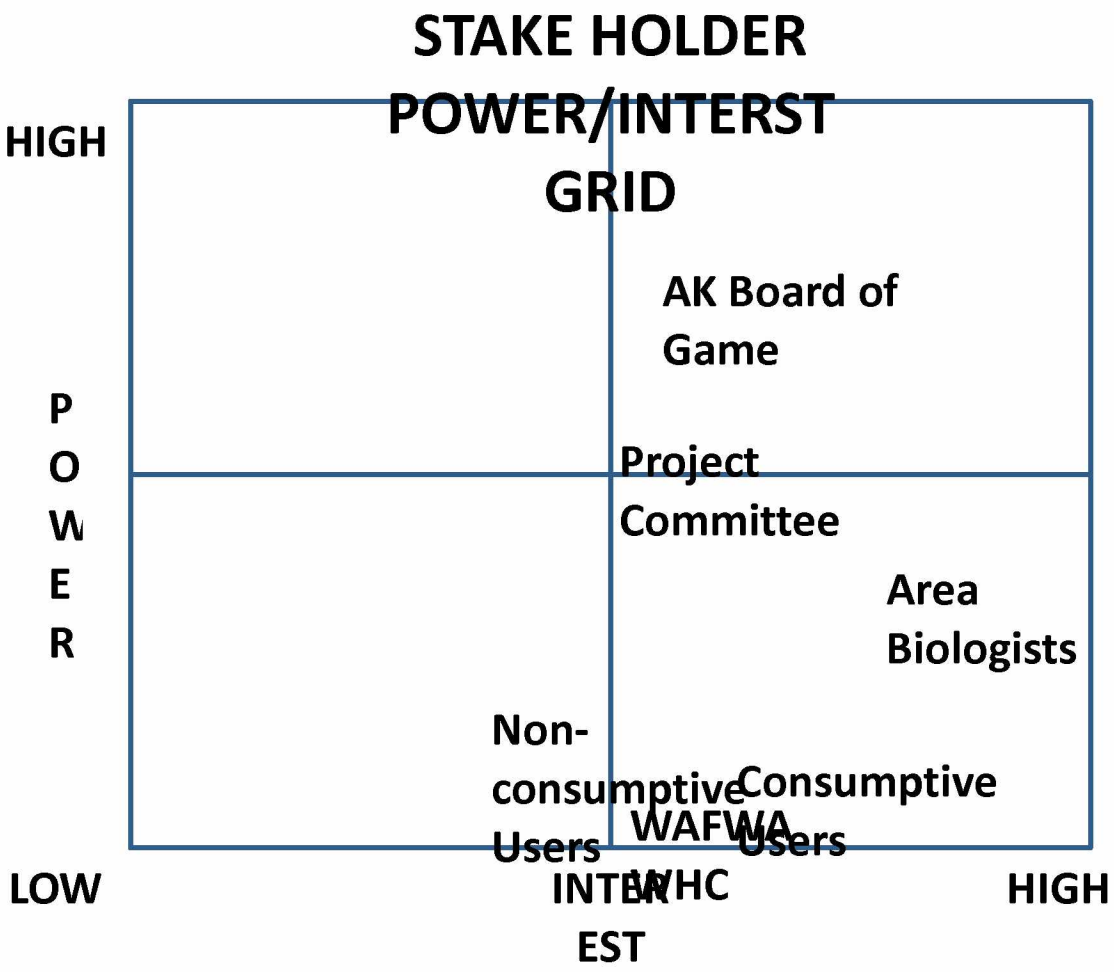
- Grant money available to continue studies
- Negotiate contracts to save project funds

Stakeholders

Any time a study is conducted on a natural resource many organizations, groups and people have a large interest in what is being done and how it is being conducted. Collaboration among wildlife managers, diagnostic laboratories and wildlife health professionals is critical. Below is an initial table identifying stakeholders that are identified.

-This Area is Intentionally Left Blank-

Name/Title	Organization	Role/Description	Communication Method	Format	Expectation
Vance Johnson/ Project Manager	UAA	Manages project, Ensures timely and effective communication	Face to face, phone, email,	N/A	N/A
Tom Lohuis/ Wildlife Bio.	Alaska Dept. of Fish and Game	Conducting study and will execute deliverable. Advises PM	Face to face, phone, email	N/A	To receive executable PMP
Roger Hull/ Project Advisor	UAA	Participates in work review, Assists and advises project manager PPM grades and go/no-go	Face to face, phone, email, blackboard	Bi-weekly meeting, class sessions, deliverables	Meets scope, On time, Clear communication
LuAnn Piccard/ Project Committee	UAA	Participates in work review, Assists and advises project manager PPM grades and go/no-go	Face to face, phone, email, blackboard	Bi-weekly meeting, class sessions, deliverables	Meets scope, On time, Clear communication
Seong Dae Kim/ Project Committee	UAA	Participates in work review Assists and advises project manager PPM grades and go/no-go	Face to face, phone, email, blackboard	Bi-weekly meeting, class sessions, Deliverables	Meets scope, On time, Clear communication
Area Biologists	Alaska Dept. of Fish and Game	Responsible for wildlife research within their respective area	Face to face, phone, email,	ADFG internal meetings, final product, reports	Any findings to be reported
N/A	Alaska Board of Game	Conserves and develops Alaska's wildlife resources, Uses research for basis of regulation development	Face to face, phone, email,	Final product, reports	Any findings to be communicated to board in report format
Wildlife Health Committee	Western Association of Fish and Wildlife Agencies	Organized group of wildlife professions that develop standards and protocols	Phone, email	Final product, reports, best practices	Any findings to be communicated in reports
Consumptive users	None	Interested in population and hunting season	Public announcements, articles, ADFG website	Final product, Reports	Any findings to be communicated in reports
Non consumptive users	None	Interested in wildlife conservation	Public announcements, articles, ADFG website	Final product, Reports	Any findings to be communicated in reports



Charter Approval

Position	Name	Signature	Date
Project Manager	Jeffrey Vance Johnson		
Project Sponsor	Thomas Lohuis		
Project Advisor	Roger Hull		

THE STATE of ALASKA
GOVERNOR BILL WALKER

Department of Fish and Game
DIVISION OF WILDLIFE CONSERVATION
Southcentral Region
333 Raspberry Road
Anchorage, Alaska 99518-1565
Main: 907.267.2257
Fax: 907.267.2532

29 January, 2015

Department of Project Management
University of Alaska, Anchorage

Dear Sir or Madam:

It is my pleasure as the Project Sponsor to support Vance Johnson's MSPM capstone to develop a Project Management Plan for our Dall's Sheep Herd Health Assessment. This project is intended to write a project proposal and sampling methodology for a four to seven year scientific study that will investigate presence and prevalence of wildlife diseases in wild mountain sheep populations in Southcentral Alaska.

As you can see, there is definitely a real world application to this work. Having Vance write the plan and clearly outline the goals and methodology will save me several hours, and, more importantly, our agency will be able to use it for several years into the future. I also believe that his application of project management skills will streamline the process and has the potential to save time and money; extremely relevant given the current fiscal challenges we are facing in state government.

Vance and I will work closely on his capstone project, so please feel free to contact me anytime either by phone or email should the need arise throughout his project if I can be of further assistance.

Sincerely,

Tom Lohuis, PhD
Dall's Sheep Research Biologist/ Regional Research Coordinator
Alaska Department of Fish and Game
333 Raspberry Rd
Anchorage AK
99518
(907) 267-2412